

## TENNESSEE

On the basis of the industries canvassed for 1929, Tennessee ranked twenty-second among the States in value of mineral products and fifteenth in number of wage earners employed in mining and quarrying industries. (See GENERAL EXPLANATIONS—Scope of the Census.) Since the scope of the censuses for 1919 and 1929 was not the same as to the industries covered, comparisons as to the magnitude of the mining and quarrying industries can not be made directly between the statistics for the two years; but by revision of the 1929 figures to exclude data for the sand and gravel industry, comparison of the activities of the remaining industries is made possible. On this basis, the value of products, as shown in Table 1, was 5.3 per cent less in 1929 than in 1919.

While the value of products of the bituminous-coal industry decreased \$4,655,358 during the decade (Table 2), the combined total for all other industries canvassed at both censuses increased \$3,413,169, which was accounted for principally in the limestone, marble, copper, and zinc industries.

The corporation was the dominant form of organization among enterprises in the mining industries in Tennessee in 1929. As shown in Table 3, corporations operated 75 per cent of all enterprises, employed 96.3 per cent of the wage earners, and produced 95.5 per cent of the total value of products. Other forms of organization include partnerships, enterprises operated by individuals, etc.

Table 4 shows the relatively large number of small enterprises as measured by the number of wage earners employed. Of the total number of enterprises

in Tennessee, 75.6 per cent were in classes having not more than 100 wage earners. These enterprises employed 33.8 per cent of the total number of wage earners and contributed 37.4 per cent of the total value of products.

The statistics for the number of hours in the working week for wage earners, given in Table 5, show that the "54 and over but under 63" class predominated, while the 48-hour class ranked second. In the bituminous-coal industry 46.8 per cent of the wage earners were in the 48-hour-week class, while in the other industries as a whole the longer working week predominated.

Table 6 gives power-equipment figures for enterprises classified according to horsepower rating. Of the aggregate horsepower shown, 18 enterprises in the 1,000-2,499 horsepower group reported 26,415 horsepower, or 31.1 per cent, while all enterprises reporting 500 or more accounted for 70,040 horsepower, or 82.4 per cent of the aggregate for the State.

The statistics for wage earners presented in Table 7, showing the changes in the numbers employed from month to month, reflect conditions prevailing in the industries during the census year.

Table 8 presents the 1929 statistics in detail for the State as a whole and for each industry for which separate figures can be given without disclosing, exactly or approximately, the data reported by individual enterprises.

The bituminous-coal industry ranked first in the State, accounting for 38.7 per cent of the total value of products.

TABLE 1.—SUMMARY FOR ALL INDUSTRIES: 1929 AND 1919<sup>1</sup>

	ALL MINING AND QUARRYING INDUSTRIES			Per cent of increase or decrease (-)		ALL MINING AND QUARRYING INDUSTRIES			Per cent of increase or decrease (-)
	1929		1919			1929		1919	
	All industries	Revised (for comparative purposes) <sup>2</sup>				All industries	Revised (for comparative purposes) <sup>2</sup>		
Number of enterprises <sup>3</sup> .....	160	140	203	-31.0					
Number of mines and quarries.....	189	187	263	-36.5					
Persons engaged, total.....	12,848	12,237	15,450	-20.8					
Proprietors and firm members.....	51	38	67	(*)					
Salaried employees.....	801	758	913	-17.0					
Wage earners (average for the year) <sup>4</sup> .....	11,936	11,441	14,470	-20.9					
Power equipment (total horsepower).....	86,257	73,772	56,675	30.2					
					Principal expenses: <sup>5</sup>				
					Salaries.....	\$1,938,144	\$1,691,703	\$1,038,395	3.3
					Wages.....	10,915,521	10,333,308	12,987,338	-20.4
					Contract work.....	143,197	139,907	178,796	-19.5
					Supplies and materials.....	2,819,435	2,416,057	3,892,397	-37.9
					Fuel.....	608,341	480,306	1,037,175	-62.8
					Purchased electric energy.....	986,499	913,308	222,808	310.0
					Value of products <sup>6</sup> .....	24,186,449	22,049,925	23,292,114	-5.3

<sup>1</sup> See GENERAL EXPLANATIONS—Scope of the Census.

<sup>2</sup> The figures for 1929 have been adjusted to make them comparable with 1919. See GENERAL EXPLANATIONS—Scope of the Census.

<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>4</sup> Per cent not computed where base is less than 100.

<sup>5</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>6</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>7</sup> See GENERAL EXPLANATIONS—Expenses.

<sup>8</sup> See GENERAL EXPLANATIONS—Value of Products.

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TABLE 2.—SUMMARY FOR BITUMINOUS-COAL INDUSTRY: 1929 AND 1919

	1929	1919	Per cent of increase or decrease (-)		1929	1919	Per cent of increase or decrease (-)
Number of enterprises <sup>1</sup> .....	65	107	-39.3	Principal expenses—Continued			
Number of mines.....	78	143	-45.5		Fuel.....	\$99,135	\$363,906
Wage earners (average for the year) <sup>2</sup> .....	6,822	9,556	-28.6	Purchased electric energy.....	\$317,599	\$50,655	527.0
Power equipment (total horsepower).....	30,684	22,946	33.7	Value of products, total.....	\$9,369,074	\$14,024,432	-33.2
Principal expenses: <sup>3</sup>				Coal:			
Salaries.....	\$956,020	\$1,031,816	-7.3	Quantity (tons, 2,000 pounds).....	5,405,000	5,132,000	5.3
Wages.....	\$5,999,023	\$8,699,051	-31.0	Value at mine.....	\$9,368,000	\$13,982,000	-32.9
Contract work.....	\$5,693	\$72,022	-92.2	Other products.....	\$1,000	\$82,000	-98.4
Supplies and materials.....	\$785,744	\$2,009,072	-60.9				

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.  
<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>3</sup> See GENERAL EXPLANATIONS—Expenses.  
<sup>4</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

TABLE 3.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products	INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products
Corporations.....	120	145	11,495	23,098,985	Corporations.....	13	14	1,377	2,287,938
Other <sup>1</sup> .....	40	44	441	1,087,464	SAND AND GRAVEL, total.....	20	22	495	2,136,524
COAL, BITUMINOUS, total.....	65	78	6,822	9,369,074	Corporations.....	13	13	405	1,650,152
Corporations.....	52	65	6,652	9,215,508	Other <sup>1</sup> .....	7	9	90	480,372
Other <sup>1</sup> .....	13	13	170	153,566	LIMESTONE, total.....	20	32	573	1,736,472
PHOSPHATE ROCK, total.....	12	12	1,189	3,128,760	Corporations.....	17	19	479	1,469,183
Corporations <sup>2</sup> .....	12	12	1,189	3,128,760	Other <sup>1</sup> .....	12	13	94	267,289

<sup>1</sup> Partnerships, enterprises operated by individuals, etc.

<sup>2</sup> Includes 1 other form of organization.

TABLE 4.—SIZE OF ENTERPRISES AS MEASURED BY NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products	INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products
1 to 5.....	19	19	73	90,930	168,088	6 to 20.....	2	2	135	104,594	348,693
6 to 20.....	30	43	460	471,286	1,587,179	21 to 50.....	3	3			
21 to 50.....	34	37	1,260	1,079,835	2,942,101	51 to 100.....	3	3			
51 to 100.....	29	33	2,248	1,965,828	4,353,624	101 to 250.....	4	4	794	661,970	1,776,927
101 to 250.....	31	44	4,954	4,593,468	8,621,040	LIMESTONE, total.....	29	32	573	562,313	1,736,472
251 to 500.....	8	13	2,951	2,744,674	6,514,318	1 to 5.....	6	6	24	23,132	53,701
COAL, BITUMINOUS, total.....	65	78	6,822	5,999,023	9,369,074	6 to 20.....	15	16	170	164,495	488,252
1 to 5.....	6	6	23	17,024	27,617	21 to 50.....	7	9	879	374,686	1,194,519
6 to 20.....	7	7	64	44,901	61,767	51 to 100.....	1	1			
21 to 50.....	12	12	434	322,208	482,646	SAND AND GRAVEL, total.....	20	22			
51 to 100.....	14	15	1,068	915,414	1,343,066	1 to 5.....	3	3	14	11,067	64,231
101 to 250.....	20	28	3,052	2,912,238	4,079,292	6 to 20.....	8	10	103	161,790	649,265
251 to 500.....	6	10	2,181	1,787,688	2,774,686	21 to 50.....	7	7	378	409,356	1,423,028
MARBLE, total.....	13	14	1,377	1,093,582	2,287,938	51 to 100.....	2	2			
6 to 20.....	1	1	503	358,585	736,459						
21 to 50.....	1	1									
51 to 100.....	6	6									
101 to 250.....	5	6				874	734,997	1,551,479			

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.

TABLE 5.—PREVAILING HOURS OF LABOR PER WEEK FOR WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

This table does not include data for enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to prevailing hours of labor. The number of enterprises in this class in Tennessee was 24, distributed as follows: Coal, bituminous, 14; limestone, 9; zinc, 1. The combined value of products represented by these enterprises was \$203,763

INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products	INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products
ALL INDUSTRIES, total <sup>1</sup>	136	165	11,775	\$10,795,011	\$23,982,688	MARBLE, total.....	13	14	1,377	\$1,093,582	\$2,287,938
Under 25.....	1	1	1,049	857,635	1,473,290	Over 48 but under 54.....	1	1	1,377	1,093,582	2,287,938
25 and over but under 30.....	8	9				54 and over but under 63.....	12	13			
30 and over but under 40.....	1	2				PHOSPHATE ROCK, total.....	12	12	1,189	1,010,322	3,128,760
40.....	15	16				44 and over but under 48.....	3	3	1,189	1,010,322	3,128,760
Over 40 but under 44.....	1	1	54 and over but under 63.....	7	7						
44 and over but under 48.....	5	5	63 and over.....	2	2						
48.....	27	41	3,784	3,780,280	7,446,598	LIMESTONE, total <sup>1</sup> .....	20	23	526	521,566	1,643,900
Over 48 but under 54.....	7	7	309	238,641	575,768	Over 48 but under 54.....	4	4	74	100,298	247,622
54 and over but under 63.....	67	79	4,120	3,715,870	10,430,052	54 and over but under 63.....	15	18	452	421,268	1,396,377
63 and over.....	4	4	377	290,048	1,025,423	63 and over.....	1	1			
COAL, BITUMINOUS, total <sup>1</sup> .....	51	64	6,712	5,921,401	9,262,976	SAND AND GRAVEL, total.....	20	22	495	582,213	2,136,524
Under 25.....	1	1	1,033	830,979	1,425,260	25 and over but under 36.....	2	2	495	582,213	2,136,524
25 and over but under 30.....	6	7				54 and over but under 63.....	17	19			
30 and over but under 40.....	1	2				63 and over.....	1	1			
40.....	15	16				1,381	1,210,465	1,747,223			
Over 40 but under 44.....	1	1	547	430,208	716,428						
44 and over but under 48.....	2	2	3,140	2,091,802	4,708,647						
48.....	20	30	611	433,917	665,418						
54 and over but under 63.....	5	5									

<sup>1</sup>See headnote.

TABLE 6.—ENTERPRISES CLASSIFIED ACCORDING TO TOTAL RATING OF POWER EQUIPMENT: 1929

[This table does not include data for 24 enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for detailed power-equipment information. Of the 136 enterprises whose value of product was \$20,000 or more, no power equipment was reported by 8]

TYPE	Total, all sizes	RATING OF POWER EQUIPMENT FOR ENTERPRISES INDIVIDUALLY REPORTING TOTAL HORSE-POWER OF—						
		Less than 25	25 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more
Number of enterprises reporting power equipment <sup>1</sup> .....	123	6	16	20	31	33	18	4
Prime movers and electric motors driven by purchased energy, aggregate horsepower <sup>2</sup> .....	84,994	93	871	3,368	10,622	24,400	26,415	19,225
Prime movers, total horsepower.....	29,920	23	681	1,390	4,495	10,742	7,670	4,925
Steam engines—								
Number.....	223	2	20	18	59	71	35	18
Horsepower.....	21,438	8	568	1,110	3,407	7,435	6,390	2,500
Steam turbines—								
Number.....	29				2	23	2	2
Horsepower.....	5,015				305	2,125	160	2,425
Internal-combustion engines—								
Number.....	61	1	7	15	20	12	6	
Horsepower.....	3,473	15	123	280	693	1,182	1,180	
Horsepower rating of inactive prime movers, included above.....	965			60	85	300	20	500
Electric motors driven by purchased energy—								
Number.....	1,509	7	12	69	158	379	423	456
Horsepower.....	65,068	70	190	1,978	6,127	13,658	18,745	14,300
Electric motors driven by energy generated by enterprises reporting.....								
Number.....	69				10	59		
Horsepower.....	2,917				350	2,567		
Electric generators:								
Number.....	8				2	5		1
Kilowatts.....	2,256				225	1,530		500

<sup>1</sup> See headnote.

<sup>2</sup> See Table 3 for total horsepower rating of power equipment for all enterprises.

TABLE 7.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1929

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

INDUSTRY	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
All industries, total.....	11,036	<b>11,557</b>	11,700	11,789	11,675	12,093	12,004	11,797	12,056	12,291	12,193	12,200	11,875	94.0
Coal, bituminous.....	6,822	6,808	6,800	6,818	<i>6,474</i>	6,888	6,727	6,590	6,683	6,859	7,013	7,094	7,048	81.3
Marble.....	1,377	<i>1,288</i>	1,311	1,327	1,368	1,389	1,373	1,369	1,421	1,434	1,471	1,406	1,377	87.2
Phosphate rock.....	1,189	1,136	1,157	1,180	1,192	1,175	1,232	1,216	1,247	1,387	<i>1,076</i>	1,134	1,131	77.0
Copper and zinc.....	1,087	1,088	1,047	1,079	1,067	1,038	1,018	1,068	1,089	1,066	1,081	1,101	1,099	92.5
Limestone.....	573	<i>467</i>	520	547	641	677	668	617	614	546	556	534	499	69.0
Sand and gravel.....	495	386	398	445	528	524	537	544	552	555	567	504	416	80.3
Other industries.....	413	409	407	393	407	402	459	403	450	444	439	427	305	66.4

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TABLE 8.—DETAILED STATISTICS FOR SELECTED INDUSTRIES: 1929

[This table presents statistics for each industry for which it is possible to give separate figures without disclosing data for individual enterprises]

	Total	Coal, bituminous	Phosphate rock	Marble	Sand and gravel	Limestone	Copper and zinc <sup>1</sup>	Other industries <sup>2</sup>
Number of enterprises <sup>3</sup> .....	100	65	12	13	20	29	6	15
Number of mines and quarries.....	189	78	12	14	22	32	8	23
Persons engaged in industry, total (all classes).....	12,848	7,287	1,236	1,434	611	625	1,207	448
Proprietors and firm members.....	51	17	1	-----	13	18	1	3
Principal salaried officers of corporations <sup>4</sup> .....	119	78	1	7	23	6	2	2
Other salaried officers and employees <sup>4</sup> .....	742	370	45	50	80	30	137	30
Wage earners (average for the year).....	11,936	6,822	1,189	1,377	495	573	1,067	413
Principal expenses:								
Salaries and wages—								
Principal officers of corporations <sup>4</sup> .....	\$503,680	\$331,997	\$6,000	\$48,500	\$88,053	\$20,000	\$5,500	\$3,630
Other salaried officers and employees <sup>4</sup> .....	\$1,434,464	\$624,023	\$116,276	\$75,914	\$158,388	\$90,278	\$339,425	\$60,160
Wage earners.....	\$10,915,521	\$5,990,623	\$1,010,322	\$1,093,582	\$582,213	\$502,313	\$1,311,056	\$355,812
Contract work.....	\$143,197	\$5,693	\$2,203	-----	\$3,290	-----	\$131,016	\$990
Supplies.....	\$2,819,435	\$785,744	\$248,430	\$147,858	\$402,778	\$258,417	\$761,018	\$224,590
Fuel.....	\$608,341	\$99,135	\$222,635	\$69,068	\$110,035	\$26,577	\$45,257	\$25,991
Purchased electric energy.....	\$985,499	\$317,599	\$118,909	\$34,794	\$72,131	\$72,964	\$288,214	\$30,833
Expenditures for development (included above in "Principal expenses").....	\$711,000	\$229,000	\$38,000	\$32,000	-----	\$20,000	\$392,000	-----
Value of products.....	\$24,186,440	\$9,309,074	\$3,128,760	\$2,287,938	\$2,130,524	\$1,736,472	\$4,450,523	\$1,077,158
Machinery and other equipment purchased during the year, total cost.....	\$1,101,064	\$178,446	\$111,297	\$81,004	\$386,757	\$50,949	\$257,843	\$26,668
Prime movers and electric motors driven by purchased energy, aggregate horsepower.....	80,257	30,684	11,811	6,730	12,485	6,852	14,893	2,802
Prime movers, total horsepower <sup>5</sup> .....	30,434	9,763	6,639	3,507	7,737	1,475	848	465
Steam engines—								
Number.....	240	50	54	33	70	22	5	6
Horsepower.....	21,946	6,547	5,889	1,985	5,402	1,155	768	200
Steam turbines—								
Number.....	29	3	1	22	1	-----	-----	2
Horsepower.....	5,015	2,675	760	1,425	5	-----	-----	160
Internal-combustion engines—								
Number.....	61	21	-----	3	18	11	5	3
Horsepower.....	3,473	541	-----	97	2,330	320	80	105
Electric motors driven by purchased energy—								
Number.....	1,520	588	155	69	97	116	407	94
Horsepower.....	55,823	20,921	5,172	3,223	4,748	5,377	14,045	2,337
Electric motors driven by energy generated by enterprises reporting:								
Number.....	69	59	-----	-----	10	-----	-----	-----
Horsepower.....	2,917	2,667	-----	-----	250	-----	-----	-----
Electric generators: <sup>6</sup>								
Number.....	8	6	1	-----	1	-----	-----	-----
Kilowatts.....	2,255	1,455	500	-----	300	-----	-----	-----
Fuel and electric energy consumed:								
Fuel—								
Coal, bituminous..... tons, 2,000 pounds.....	204,720	52,745	65,078	29,724	29,352	7,028	13,563	6,630
Coke..... tons, 2,000 pounds.....	10	-----	-----	-----	10	-----	-----	-----
Fuel oils..... gallons.....	251,957	3,402	-----	2,457	230,491	2,027	7,580	-----
Gasoline and kerosene..... gallons.....	215,500	22,939	-----	1,084	84,911	29,879	56,090	20,597
Electric energy—								
Purchased..... kw.-hours.....	89,382,515	25,953,521	9,104,113	5,315,155	2,941,033	6,224,843	36,786,142	3,057,658
Generated by enterprises reporting..... kw.-hours.....	7,972,000	7,692,000	-----	-----	280,000	-----	-----	-----

<sup>1</sup> Copper, 2 enterprises; zinc, 4.  
<sup>2</sup> Barite, 2 enterprises; clay, 5; iron ore, 4; manganese, 1; sandstone, 1; silica, 1; stone, miscellaneous, 1.  
<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.  
<sup>4</sup> Not including data for salaried officers and employees of "Central Administrative" offices.  
<sup>5</sup> Includes 965 horsepower for inactive prime movers.  
<sup>6</sup> Includes 500 kilowatts for inactive generators.

## TEXAS

On the basis of the industries canvassed for 1929, Texas ranked twelfth among the States in value of mineral products and twenty-second in number of wage earners employed in mining and quarrying industries. (See GENERAL EXPLANATIONS—Scope of the Census.) Since the scope of the censuses for 1919 and 1929 was not the same as to the industries covered, comparisons as to the magnitude of the mining and quarrying industries can not be made directly between the statistics for the two years; but by revision of the figures to exclude data for all industries not canvassed at both censuses, comparison of the activities of the remaining industries is made possible. On this basis, the value of products, as shown in Table 1, was 160.2 per cent greater in 1929 than in 1919. Most of this increase was contributed by the sulphur industry, for which statistics can not be shown separately for Texas. (See headnote, Table 7.) The statistics for the industry as a whole are given in the General Report for the United States. The production of coal decreased from 1,588,240 short tons valued at \$4,322,100 for 1919 to 1,106,397 short tons valued at \$1,674,171 for 1929.

The corporation was the dominant form of organization among enterprises in the mining industries in Texas in 1929. As shown in Table 2, corporations operated 72.9 per cent of all enterprises, employed 88.5 per cent of the wage earners, and produced 96.2 per cent of the total value of products. Other forms of organization include partnerships, enterprises operated by individuals, etc.

Table 3 shows the relatively large number of small enterprises as measured by the number of wage earners employed. Of the total number of enterprises in Texas, 79.7 per cent were in classes having not more than 50 wage earners. These enterprises employed 31.8 per cent of the total number of wage earners and contributed 13.8 per cent of the total value of products.

The statistics for the number of hours in the working week for wage earners, given in Table 4, show that the "54 and over but under 63" class predominated, while the 48-hour-week class ranked second. In the sand and gravel industry 80.8 per cent of the wage earners were in the "54 and over but under 63" class.

Table 5 gives power-equipment figures for enterprises classified according to horsepower rating. Of the aggregate horsepower shown, 6 enterprises in the "2,500 or more" group reported 37,403 horsepower, or 45.5 per cent, while all enterprises reporting 250 or more accounted for 75,853 horsepower, or 92.2 per cent of the aggregate for the State.

The statistics for wage earners presented in Table 6, showing the changes in the numbers employed from month to month, reflect conditions prevailing in the industries during the census year.

Table 7 presents the 1929 statistics in detail for the State as a whole and for each industry for which separate figures can be given without disclosing, exactly or approximately, the data reported by individual enterprises.

TABLE 1.—SUMMARY FOR ALL INDUSTRIES: 1929 AND 1919<sup>1</sup>

	ALL MINING AND QUARRYING INDUSTRIES				Per cent of increase or decrease (-)	ALL MINING AND QUARRYING INDUSTRIES				Per cent of increase or decrease (-)
	1929		1919 <sup>2</sup>	Per cent of increase or decrease (-)		1929		1919 <sup>2</sup>	Per cent of increase or decrease (-)	
	All industries	Revised (for comparative purposes) <sup>3</sup>				All industries	Revised (for comparative purposes) <sup>3</sup>			
Number of enterprises <sup>4</sup> .....	133	92	71	(9)	Principal expenses: <sup>7</sup> Salaries..... \$2,196,107 \$1,566,320 \$975,368 60.6 Wages..... 7,600,268 6,150,558 4,988,868 23.3 Contract work..... 60,835 41,720 7,543 453.2 Supplies and materials..... 5,475,452 4,475,200 2,260,867 97.9 Fuel..... 4,978,870 4,674,049 1,720,911 171.6 Purchased electric energy..... 369,361 165,435 40,798 305.5 Value of products <sup>8</sup> ..... 49,758,382 44,338,518 17,040,696 160.2	(9)				
Number of mines and quarries.....	159	104	81	(9)						
Persons engaged, total.....	7,379	5,787	4,986	16.1						
Proprietors and firm members.....	46	29	31	(1)						
Salaried employees.....	\$ 789	\$ 568	390	45.6						
Wage earners (average for the year) <sup>5</sup> .....	6,544	5,190	4,565	13.7						
Power equipment (total horsepower).....	82,914	60,304	21,514	180.7						

<sup>1</sup> See GENERAL EXPLANATIONS—Scope of the Census.

<sup>2</sup> The figures for 1929 and 1919 have been adjusted to make them comparable. See GENERAL EXPLANATIONS—Scope of the Census.

<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>4</sup> Per cent not computed where base is less than 100.

<sup>5</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>6</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>7</sup> See GENERAL EXPLANATIONS—Expenses.

<sup>8</sup> See GENERAL EXPLANATIONS—Value of Products.

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TABLE 2.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products	INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products
ALL INDUSTRIES, total.....	133	159	6,544	\$49,758,382	COAL, BITUMINOUS, total.....	22	26	1,235	\$1,674,171
Corporations.....	97	118	5,792	47,849,029	Corporations.....	16	19	1,156	1,687,424
Other <sup>1</sup> .....	36	41	752	1,909,353	Other <sup>1</sup> .....	6	7	79	86,747
SAND AND GRAVEL, total.....	41	55	1,354	5,424,804	ASPHALT AND BITUMINOUS ROCK, total.....	3	3	178	955,968
Corporations.....	20	43	1,164	4,793,288	Corporations <sup>2</sup> .....	3	3	178	955,968
Other <sup>1</sup> .....	12	12	190	631,576	GYPSSUM, total.....	5	6	111	498,570
LIMESTONE, total.....	36	41	1,170	3,171,522	Corporations.....	5	6	111	498,570
Corporations.....	25	26	819	2,593,873					
Other <sup>1</sup> .....	11	15	351	688,149					

<sup>1</sup> Partnerships, enterprises operated by individuals, etc.

<sup>2</sup> Includes 1 other form of organization.

TABLE 3.—SIZE OF ENTERPRISES AS MEASURED BY NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products	INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products
ALL INDUSTRIES, total.....	133	159	6,544	\$7,609,258	\$49,758,382	COAL, BITUMINOUS, total.....	22	26	1,235	\$946,990	\$1,674,171
1 to 5.....	15	15	54	58,447	238,814	6 to 20.....	8	8	95	68,510	105,158
6 to 20.....	48	55	598	600,437	1,660,098	21 to 50.....	7	8	219	211,539	405,632
21 to 50.....	43	50	1,430	1,482,589	4,674,051	51 to 100.....	4	4	276	175,837	240,392
51 to 100.....	16	18	1,126	1,053,552	3,952,399	101 to 250.....	3	6	645	491,104	922,989
101 to 250.....	8	17	3,336	4,414,233	38,927,020	LIMESTONE, total.....	36	41	1,170	1,128,920	3,171,522
501 to 1,000.....	3	4				1 to 5.....	5	5	19	24,337	65,202
SAND AND GRAVEL, total.....	41	55	1,354	1,458,700	5,424,804	6 to 20.....	10	14	114	94,158	317,094
1 to 5.....	2	2	200	220,922	939,967	21 to 50.....	14	14	516	535,542	1,565,308
6 to 20.....	17	18	470	509,101	1,778,505	51 to 100.....	6	6	521	474,883	1,223,918
21 to 50.....	16	22	684	728,677	2,706,392	101 to 250.....	1	2			
51 to 100.....	3	5									
101 to 250.....	3	8									

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.

TABLE 4.—PREVAILING HOURS OF LABOR PER WEEK FOR WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

[This table does not include data for enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to prevailing hours of labor. The number of enterprises in this class in Texas was 12, distributed as follows: Coal, bituminous, 8; granite, 1; lead, 1; limestone, 2. The combined value of products represented by these enterprises was \$131,058]

INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products	INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products
ALL INDUSTRIES, total <sup>1</sup> .....	121	147	6,436	\$7,527,518	\$49,627,324	COAL, BITUMINOUS, total <sup>1</sup> .....	14	18	1,140	\$878,480	\$1,560,013
25 and over but under 36.....	5	8	112	115,679	196,922	25 and over but under 36.....	3	4	100	135,892	211,930
40.....	2	2	83	50,446	111,628	40.....	2	2	510	359,784	464,553
44 and over but under 48.....	2	2				48.....	6	6	470	382,854	872,530
48.....	22	23	1,097	1,871,213	17,860,881	Over 48 but under 54.....	1	1			
Over 48 but under 54.....	1	1	4,107	4,945,455	28,949,314	54 and over but under 63.....	2	5			
54 and over but under 63.....	78	98	437	544,725	2,598,579	LIMESTONE, total <sup>1</sup> .....	34	39	1,164	1,123,840	3,161,522
63 and over.....	11	13				25 and over but under 36.....	1	3	95	95,811	206,287
SAND AND GRAVEL, total.....	41	55	1,354	1,458,700	5,424,804	48.....	3	3	921	877,340	2,360,221
25 and over but under 36.....	1	1	23	22,733	79,870	54 and over but under 63.....	25	28	148	150,689	506,014
44 and over but under 48.....	2	2	36	49,200	142,706	63 and over.....	5	5			
48.....	3	3	1,094	1,118,740	4,243,452						
54 and over but under 63.....	31	43	201	268,027	958,746						
63 and over.....	4	6									

<sup>1</sup> See headnote.

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TABLE 5.—ENTERPRISES CLASSIFIED ACCORDING TO TOTAL RATING OF POWER EQUIPMENT: 1929

[This table does not include data for 12 enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for detailed power-equipment information. Of the 121 enterprises whose value of product was \$20,000 or more, no power equipment was reported by 2]

TYPE	Total, all sizes	RATING OF POWER EQUIPMENT FOR ENTERPRISES INDIVIDUALLY REPORTING TOTAL HORSE-POWER OF—						
		Less than 25	25 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more
Number of enterprises reporting power equipment <sup>1</sup> .....	110	8	16	30	31	18	10	8
Prime movers and electric motors driven by purchased energy, aggregate horsepower <sup>2</sup> .....	82,245	105	988	5,299	10,182	14,099	14,169	37,403
Prime movers, total horsepower.....	61,739	90	833	3,036	8,363	6,127	7,668	35,623
Steam engines—								
Number.....	497	4	10	12	59	54	39	319
Horsepower.....	28,627	65	435	860	3,703	3,735	3,085	16,744
Steam turbines—								
Number.....	54			1		3	1	49
Horsepower.....	16,509			150		75	860	15,424
Internal-combustion engines—								
Number.....	279	2	18	50	76	43	44	46
Horsepower.....	16,603	25	398	2,025	4,660	2,317	3,723	3,455
Horsepower rating of inactive prime movers, included above.....	1,804			109	40	795	860	
Electric motors driven by purchased energy—								
Number.....	636	2	7	111	76	163	107	80
Horsepower.....	20,500	15	155	2,204	1,819	7,972	6,501	1,780
Electric motors driven by energy generated by enterprises reporting.....								
Number.....	556			22	12	70	34	418
Horsepower.....	17,632			348	170	876	1,935	14,308
Electric generators:								
Number.....	43			7	4	9	5	18
Kilowatts.....	10,778			451	192	680	790	8,695

<sup>1</sup> See headnote.

<sup>2</sup> See Table 7 for total horsepower rating of power equipment for all enterprises.

TABLE 6.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1929

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

INDUSTRY	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
All industries, total.....	6,544	<b>5,308</b>	5,098	6,200	7,068	6,832	6,717	6,799	6,776	6,570	6,667	6,548	6,383	83.6
Sand and gravel.....	1,354	<i>1,108</i>	1,182	1,320	1,371	1,378	1,333	1,362	1,440	1,468	1,494	<b>1,411</b>	1,393	74.2
Coal, bituminous.....	1,235	<i>1,262</i>	1,220	1,227	1,219	<i>1,210</i>	1,221	1,232	1,215	1,214	1,232	1,274	1,286	94.1
Limestone.....	1,170	<i>975</i>	989	1,075	1,179	1,165	1,228	1,300	1,274	1,198	1,245	1,253	1,157	75.0
Asphalt and bituminous rock.....	178	165	191	187	190	189	186	180	158	176	170	161	<i>154</i>	79.0
Mercury.....	114	115	116	121	114	<i>110</i>	111	<i>110</i>	111	115	113	111	117	94.0
Gypsum.....	111	101	113	121	122	116	109	113	109	106	114	108	<i>99</i>	81.1
Granite.....	57	<i>54</i>	54	63	63	63	63	63	63	63	63	63	65	55.6
Fuller's and filtering earths.....	51	<i>53</i>	54	51	50	50	51	52	<i>48</i>	49	51	51	50	88.9
Other industries.....	2,274	<b>2,045</b>	2,070	2,095	2,765	2,551	2,415	2,387	2,358	2,200	2,185	2,144	2,062	74.2

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TABLE 7.—DETAILED STATISTICS FOR SELECTED INDUSTRIES: 1929

[This table presents statistics for each industry for which it is possible to give separate figures without disclosing data for individual enterprises. Two of the "Other industries," however, were of greater importance in the State than some of the industries shown separately.]

	Total	Sand and gravel	Limestone	Coal, bituminous	Asphalt and bituminous rock	Gypsum	Mercury	Fuller's and filtering earths	Granite	Other industries
Number of enterprises <sup>1</sup> .....	133	41	36	22	3	5	3	5	5	13
Number of mines and quarries.....	159	55	41	26	3	6	3	5	6	14
Persons engaged in industry, total (all classes).....	7,379	1,592	1,274	1,309	215	122	135	61	69	2,602
Proprietors and firm members.....	40	17	13	7	1				0	2
Principal salaried officers of corporations <sup>2</sup> .....	127	63	15	20	6	2	5	1	3	12
Other salaried officers and employees <sup>3</sup> .....	602	153	76	47	30	9	16	9	3	314
Wage earners (average for the year).....	6,544	1,354	1,170	1,235	178	111	114	51	57	2,274
Principal expenses:										
Salaries and wages—										
Principal officers of corporations <sup>3</sup> .....	\$576,001	\$317,654	\$60,488	\$38,679	\$35,200	\$2,000	\$11,800	\$2,280	\$6,300	\$101,300
Other salaried officers and employees <sup>3</sup> .....	\$1,020,106	\$312,133	\$142,777	\$74,517	\$86,663	\$10,690	\$48,201	\$19,387	\$3,000	\$613,738
Wage earners.....	\$7,000,298	\$1,458,700	\$1,128,920	\$946,990	\$218,058	\$124,015	\$96,321	\$59,468	\$80,960	\$3,515,820
Contract work.....	\$50,835	\$0,106	\$5,362		\$25,082			\$1,016		\$10,269
Supplies.....	\$5,475,452	\$1,000,153	\$620,611	\$120,193	\$182,876	\$60,532	\$44,048	\$37,112	\$15,134	\$3,394,793
Fuel.....	\$4,978,870	\$304,821	\$143,677	\$18,637	\$30,090	\$19,522	\$11,212	\$12,517	\$3,695	\$4,435,899
Purchased electric energy.....	\$369,361	\$203,926	\$104,892	\$24,374		\$22,241			\$2,972	\$10,056
Expenditures for development (included above in "Principal expenses").....	\$545,000		\$58,000	\$12,000		\$23,000	\$36,000	\$4,000		\$412,000
Value of products.....	\$49,758,382	\$5,424,864	\$3,171,522	\$1,074,171	\$955,968	\$498,570	\$327,457	\$260,006	\$140,834	\$37,304,990
Machinery and other equipment purchased during the year, total cost.....	\$2,531,838	\$434,813	\$250,100	\$47,683	\$6,085	\$141,334	\$28,815	\$4,583	\$2,500	\$1,615,865
Prime movers and electric motors driven by purchased energy, aggregate horsepower.....	82,914	22,520	13,650	4,966	4,390	1,765	876	809	640	33,298
Prime movers, total horsepower <sup>4</sup> .....	62,278	14,648	4,856	3,166	4,390	410	876	809	400	32,723
Steam engines—										
Number.....	512	93	55	50	11	1		4	2	296
Horsepower.....	29,166	7,275	2,855	2,988	1,200	20		445	95	14,288
Steam turbines—										
Number.....	54		4						1	49
Horsepower.....	16,509		935						150	15,424
Internal-combustion engines—										
Number.....	279	132	22	8	17	5	26	10	3	50
Horsepower.....	16,603	7,373	1,066	178	3,190	390	876	364	155	3,011
Electric motors driven by purchased energy—										
Number.....	641	272	207	84		54			8	10
Horsepower.....	20,636	7,872	8,794	1,800		1,855			240	575
Electric motors driven by energy generated by enterprises reporting:										
Number.....	556	20		19	42	5	17	1		452
Horsepower.....	17,632	610		339	2,580	130	336	10		13,627
Electric generators: <sup>5</sup>										
Number.....	43	3		3	8	1	7	2		10
Kilowatts.....	10,778	325		300	1,440	150	401	17		8,145
Fuel and electric energy consumed:										
Fuel—										
Coal—										
Anthracite..... tons, 2,240 pounds.....	903	602	300						1	
Bituminous..... tons, 2,000 pounds.....	54,082	11,791	19,723	17,671	30			3,474	493	960
Coke..... tons, 2,000 pounds.....	50								50	
Fuel oils..... gallons.....	12,342,913	4,617,530	1,084,631		774,410	163,874	357,307	3,200	54,000	5,287,661
Gasoline and kerosene..... gallons.....	802,347	487,327	162,296	500	33,125	55,576	10,151	7,558	6,815	38,999
Gas—										
Manufactured..... M cubic feet.....	34,887	34,887								
Natural..... M cubic feet.....	23,222,897	45,864	99,260			5,000				23,072,773
Electric energy—										
Purchased..... kw.-hours.....	17,008,974	8,282,242	6,321,291	626,313		1,345,378			83,850	349,900
Generated by enterprises reporting..... kw.-hours.....	19,402,348	460,000			1,306,500	450,000	650,000			16,535,848

<sup>1</sup> Basalt, 1 enterprise; clay, 1; copper, 2; lead, 1; mica, 1; silica, 1; silver, 1; stone, miscellaneous, 1; sulphur, 4.

<sup>2</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>3</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>4</sup> Includes 1,804 horsepower for inactive prime movers.

<sup>5</sup> Includes 1,725 kilowatts for inactive generators.

## UTAH

On the basis of the industries canvassed for 1929, Utah ranked eighth among the States in value of mineral products and fourteenth in number of wage earners employed in mining and quarrying industries. (See GENERAL EXPLANATIONS—Scope of the Census.) Since the scope of the censuses for 1919 and 1929 was not the same as to the industries covered, comparisons as to the magnitude of the mining and quarrying industries can not be made directly between the statistics for the two years; but by revision of the 1929 figures to exclude data for the sand and gravel industry, comparison of the activities of the remaining industries is made possible. On this basis, the value of products, as shown in Table 1, was 99.6 per cent greater in 1929 than in 1919. Practically all of this increase is accounted for by the metal-mining industries, as shown in Table 2.

Statistics for nonproducing (development only) enterprises are given in Table 3, and are not included in any of the other tables shown.

The corporation was the dominant form of organization among enterprises in the mining industries in Utah in 1929. As shown in Table 4, corporations operated 80.8 per cent of all enterprises, employed 98.3 per cent of the wage earners, and produced 97.9 per cent of the total value of products. Other forms of organization include partnerships, enterprises operated by individuals, etc.

Table 5 shows the relatively large number of small enterprises as measured by the number of wage earners employed. Of the total number of enterprises in Utah, 76.7 per cent were in classes having not more than 100 wage earners. These enterprises employed only 18.3 per cent of the total number of wage earners and contributed 11.9 per cent of the total value of products.

The statistics for the number of hours in the working

week for wage earners, given in Table 6, show that the "54 and over but under 63" class predominated, while the 48-hour class ranked second.

Table 7 gives power-equipment figures for enterprises classified according to horsepower rating. Of the aggregate horsepower shown, 5 enterprises in the "5,000 or more" group reported 119,639 horsepower, or 66.8 per cent, while all enterprises reporting 500 or more accounted for 170,913 horsepower, or 95.4 per cent of the aggregate for the State.

The statistics for wage earners presented in Table 8, showing the changes in the numbers employed from month to month, reflect conditions prevailing in the industries during the census year.

Table 9 presents the 1929 statistics in detail for the State as a whole and for each industry for which separate figures can be given without disclosing, exactly or approximately, the data reported by individual enterprises. The copper industry ranked first in the State, accounting for 55.6 per cent of the total value of products.

The value of products of the metal-mining industries is not the value of the metals produced or recoverable but represents the sales value at the point of production (or shipment) of the ores, concentrates, bullion, and mine-water precipitates—in other words, the mine and mill products. The smelting and refining operations and the value of the metals—the final products—are reported by the census of manufactures.

The classification of metal mines, by industries, was determined by the metal of chief value. Therefore, the value of products of the silver-mining industry, for example, represents the value of products for those enterprises classified in that industry, and does not include the mine value of silver contained in the ore or concentrates produced by other metal-mining industries.

TABLE 1.—SUMMARY FOR ALL INDUSTRIES: 1929 AND 1919<sup>1</sup>

	ALL MINING AND QUARRYING INDUSTRIES				Per cent of increase or decrease (-)		ALL MINING AND QUARRYING INDUSTRIES				Per cent of increase or decrease (-)
	1929			1919			1929			1919	
	All industries	Revised (for comparative purposes) <sup>2</sup>					All industries	Revised (for comparative purposes) <sup>2</sup>			
Number of enterprises <sup>3</sup> .....	120	117	141	-17.0	Principal expenses: <sup>7</sup>						
Number of mines and quarries.....	135	131	154	-14.9	Salaries.....	\$2,652,368	\$2,633,231	\$1,916,913		37.4	
Persons engaged, total.....	13,098	13,055	10,758	21.4	Wages.....	21,264,248	21,225,133	17,190,052		28.4	
Proprietors and firm members.....	29	29	53	( <sup>4</sup> )	Contract work.....	2,051,993	2,051,993	491,178		317.8	
Salaried employees.....	893	877	858	2.2	Supplies and materials.....	13,650,522	13,571,363	8,043,453		68.7	
Wage earners (average for the year) <sup>5</sup> .....	12,176	12,149	9,847	23.4	Fuel.....	400,921	400,921	834,480		-50.9	
Power equipment (total horsepower).....	180,321	170,475	35,816	109.1	Purchased electric energy.....	3,700,898	3,693,751	1,184,630		211.8	
					Value of products <sup>8</sup> .....	83,098,029	82,843,031	41,510,802		99.6	

<sup>1</sup> See GENERAL EXPLANATIONS—Scope of the Census.

<sup>2</sup> The figures for 1929 have been adjusted to make them comparable with 1919. See GENERAL EXPLANATIONS—Scope of the Census.

<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>4</sup> Per cent not computed where base is less than 100.

<sup>5</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>6</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>7</sup> See GENERAL EXPLANATIONS—Expenses.

<sup>8</sup> See GENERAL EXPLANATIONS—Value of Products.

MINES AND QUARRIES—UTAH

TABLE 2.—COMBINED SUMMARY FOR THE GOLD, SILVER, COPPER, LEAD, AND ZINC MINING INDUSTRIES: 1929 AND 1919

	1929	1919	Per cent of increase or decrease (-)		1929	1919	Per cent of increase or decrease (-)
Number of enterprises <sup>1</sup> .....	53	86	(?)	Principal expenses—Continued			
Number of mines.....	60	88	(?)	Contract work.....	\$1,885,573	\$496,878	287.3
Wage earners (average for the year) <sup>2</sup> .....	8,243	5,874	40.3	Supplies and materials.....	11,774,805	6,248,694	88.4
Power equipment (total horsepower).....	138,715	60,770	128.8	Fuel.....	328,206	643,734	-49.0
Principal expenses: <sup>4</sup>				Purchased electric energy.....	3,200,156	1,072,915	198.3
Salaries.....	<sup>5</sup> \$1,603,732	\$1,265,857	26.7	Value of products.....	<sup>6</sup> 67,148,475	27,824,207	141.3
Wages.....	13,933,668	9,176,378	51.8				

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.  
<sup>2</sup> Per cent not computed where base is less than 100.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons Engaged.  
<sup>4</sup> See GENERAL EXPLANATIONS—Expenses.  
<sup>5</sup> Not including data for salaried officers and employees of "Central Administrative" offices.  
<sup>6</sup> Statistics for the copper, lead, and silver mining industries shown separately in Table 9. Combined value of products for the gold and zinc mining industries of minor importance, amounting to only \$364,877.

TABLE 3.—SUMMARY FOR NONPRODUCING ENTERPRISES: 1929

	1929	1929	
Number of enterprises.....	66	Principal expenses—Continued	
Number of mines.....	69	Contract work.....	\$87,781
Wage earners (average for the year).....	431	Supplies, fuel, and purchased electric energy.....	422,261
Power equipment (total horsepower).....	3,632	Expenditures for development (included above in "Principal expenses").....	1,177,153
Principal expenses:			
Salaries.....	\$93,373		
Wages.....	636,040		

TABLE 4.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products	INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products
ALL INDUSTRIES, total.....	120	135	12,176	\$83,098,029	SILVER, total.....	11	11	930	\$3,305,749
Corporations.....	97	111	11,973	81,320,233	Corporations.....	8	8	860	2,652,058
Other <sup>1</sup> .....	23	24	203	1,777,796	Other <sup>1</sup> .....	3	3	79	653,691
COPPER, total.....	9	10	3,160	46,227,987	ASPHALT AND BITUMINOUS ROCK, total.....	8	11	175	1,611,283
Corporations <sup>2</sup> .....	9	10	3,160	46,227,987	Corporations <sup>3</sup> .....	8	11	175	1,611,283
LEAD, total.....	29	34	4,083	17,240,802	LIMESTONE, total.....	8	8	103	269,444
Corporations.....	29	34	4,083	17,240,802	Corporations <sup>3</sup> .....	8	8	103	269,444
COAL, BITUMINOUS, total.....	36	40	3,452	13,145,832	SAND AND GRAVEL, total.....	3	4	27	254,998
Corporations.....	28	32	3,437	13,079,947	Corporations.....	3	4	27	254,998
Other <sup>1</sup> .....	8	8	15	65,885					

<sup>1</sup> Partnerships, enterprises operated by individuals, etc.      <sup>2</sup> Includes 1 other form of organization.      <sup>3</sup> Includes 2 other forms of organization.

TABLE 5.—SIZE OF ENTERPRISES AS MEASURED BY NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products	INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products
ALL INDUSTRIES, total.....	120	135	12,176	\$21,284,248	\$83,098,029	COAL, BITUMINOUS—Continued					
1 to 5.....	26	27	69	91,904	278,049	51 to 100.....	6	6	449	\$850,602	\$1,521,798
6 to 20.....	33	34	422	564,274	1,226,819	101 to 250.....	10	12	1,698	3,257,343	7,174,063
21 to 50.....	17	18	579	1,001,468	2,225,083	251 to 500.....	2	3	1,154	2,122,814	3,704,775
51 to 100.....	16	16	1,159	1,901,847	6,119,798	501 to 1,000.....	1	1			
101 to 250.....	8	21	2,459	4,830,937	10,247,590	COPPER, total.....	9	10	3,160	5,455,417	46,227,987
251 to 500.....	8	11	3,129	5,601,631	12,036,223	1 to 5.....	1	1			
501 to 1,000.....	2	2	4,359	7,322,187	50,994,467	6 to 20.....	4	4			
1,001 to 2,500.....	2	3				21 to 50.....	1	1			
LEAD, total.....	29	34	4,083	6,691,787	17,249,802	51 to 100.....	1	1			
1 to 5.....	2	2	112	142,291	176,531	1,001 to 2,500.....	2	3			
6 to 20.....	7	7	176	282,540	997,350	SILVER, total.....	11	11	930	1,628,964	3,305,749
21 to 50.....	6	6	264	381,571	1,441,762	1 to 5.....	1	1	25	26,708	35,014
51 to 100.....	4	4	632	1,098,779	2,634,903	6 to 20.....	2	2	81	172,909	114,698
101 to 250.....	4	7	2,899	4,866,600	12,000,310	21 to 50.....	3	3			
251 to 500.....	5	7				51 to 100.....	2	2			
501 to 1,000.....	1	1				101 to 250.....	2	2	833	1,429,347	3,156,037
COAL, BITUMINOUS, total.....	36	40	3,452	6,635,673	13,145,832	251 to 500.....	1	1			
1 to 5.....	9	9	16	19,122	68,279						
6 to 20.....	4	4	62	94,692	138,806						
21 to 50.....	4	5	173	291,100	478,111						

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.

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TABLE 6.—PREVAILING HOURS OF LABOR PER WEEK FOR WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

[This table does not include data for enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to prevailing hours of labor. The number of enterprises in this class in Utah was 19, distributed as follows: Coal, bituminous, 10; copper, 3; lead, 2; silver, 4. The combined value of products represented by these enterprises was \$169,926]

INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products	INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products
ALL INDUSTRIES, total <sup>1</sup> .....	101	116	12,063	\$21,109,018	\$82,938,103	COAL, BITUMINOUS, total <sup>1</sup> .....	26	30	3,428	\$6,604,666	\$13,063,317
Under 25.....	1	1	712	1,412,312	2,417,567	Under 25.....	1	1	712	1,412,312	2,417,567
25 and over but under 36.....	3	5				25 and over but under 36.....	3	5			
36 and over but under 40.....	1	2				36 and over but under 40.....	1	2			
48.....	52	59	3,633	6,673,007	15,535,224	48.....	21	22	2,716	5,192,354	10,645,750
Over 48 but under 54.....	6	6	980	1,672,597	5,102,354	COPPER, total <sup>1</sup> .....					
54 and over but under 63.....	34	39	5,757	9,663,303	56,789,894	54 and over but under 63.....	5	6	3,118	5,431,641	46,201,842
63 and over.....	4	7	971	1,687,299	3,043,094	63 and over.....	2	2	890	1,536,450	3,261,539
LEAD, total <sup>1</sup> .....	27	32	4,075	6,883,854	17,242,806	SILVER, total <sup>1</sup> .....					
Over 48 but under 54.....	6	9	511	896,506	2,620,520	54 and over but under 63.....	7	7	890	1,536,450	3,261,539
54 and over but under 63.....	4	4	914	1,505,999	4,782,015	63 and over.....	5	5	890	1,536,450	3,261,539
63 and over.....	16	16	2,650	4,281,349	9,833,365						
	1	3									

<sup>1</sup> See headnote.

TABLE 7.—ENTERPRISES CLASSIFIED ACCORDING TO TOTAL RATING OF POWER EQUIPMENT: 1929

[This table does not include data for 19 enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for detailed power-equipment information. Of the 101 enterprises whose value of product was \$20,000 or more, no power equipment was reported by 10]

TYPE	Total, all sizes	RATING OF POWER EQUIPMENT FOR ENTERPRISES INDIVIDUALLY REPORTING TOTAL HORSEPOWER OF—							
		Less than 25	25 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 to 4,999	5,000 or more
Number of enterprises reporting power equipment <sup>1</sup> .....	91	4	14	20	12	17	14	5	5
Prime movers and electric motors driven by purchased energy, aggregate horsepower <sup>2</sup> .....	179,217	38	763	3,327	4,176	13,198	10,018	18,158	119,639
Prime movers total horsepower.....	5,249	13	348	328	1,265	1,070	1,027		300
Steam engines—									
Number.....	35				10	12	11		
Horsepower.....	3,845		15		345	1,070	1,915		
Internal-combustion engines—									
Number.....	43	3	13	10	14		2		1
Horsepower.....	1,364	13	293	320	420		12		300
Water wheels and water turbines—									
Number.....	2		2						
Horsepower.....	40		40						
Horsepower rating of inactive prime movers, included above.....	332				20		312		
Electric motors driven by purchased energy—									
Number.....	5,996	2	27	103	92	263	473	342	4,704
Horsepower.....	173,988	25	415	3,001	2,911	12,128	17,991	18,158	119,339
Electric motors driven by energy generated by enterprises reporting:									
Number.....	4				4				
Horsepower.....	280				280				
Electric generators:									
Number.....	8		2		4				2
Kilowatts.....	689		80		450				150

<sup>1</sup> See headnote.

<sup>2</sup> See Table 9 for total horsepower rating of power equipment for all enterprises.

TABLE 8.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1929

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

INDUSTRY	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
All industries, total.....	12,176	12,569	12,066	12,457	12,120	12,014	11,867	<b>11,657</b>	11,664	11,891	12,203	12,374	12,684	91.9
Lead.....	4,083	3,924	<i>3,918</i>	4,011	3,933	4,062	4,077	3,964	4,082	4,120	4,141	4,272	4,493	87.2
Coal, bituminous.....	3,452	4,060	3,938	3,486	3,078	2,819	2,733	2,764	2,991	3,423	3,771	4,037	4,327	63.2
Copper.....	3,180	3,245	3,378	3,508	3,661	3,662	3,476	3,268	2,976	2,779	2,835	2,662	2,471	67.5
Silver.....	939	<i>878</i>	910	902	918	925	989	993	980	975	948	941	912	88.4
Asphalt and bituminous rock.....	175	155	150	149	<i>146</i>	157	171	205	220	211	192	179	160	66.4
Limestone.....	103	66	89	129	124	120	132	163	116	85	79	77	60	36.8
Sand and gravel.....	27	23	20	24	28	35	39	38	34	27	22	21	17	43.6
Gypsum.....	21	<i>19</i>	<i>19</i>	<i>19</i>	<i>19</i>	<i>19</i>	22	22	23	23	28	21	21	82.6
Other industries.....	210	199	184	229	222	215	228	240	242	248	192	164	223	66.1

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TABLE 9.—DETAILED STATISTICS FOR SELECTED INDUSTRIES: 1929

[This table presents statistics for each industry for which it is possible to give separate figures without disclosing data for individual enterprises. Certain of the "Other industries," however, were of greater importance in the State than some of the industries shown separately]

	Total	Copper	Lead <sup>1</sup>	Coal, bituminous	Silver	Asphalt and bituminous rock	Limestone	Sand and gravel	Gypsum	Other industries <sup>2</sup>
Number of enterprises <sup>3</sup> .....	120	9	20	36	11	8	8	3	3	13
Number of mines and quarries.....	135	10	34	40	11	11	8	4	3	14
Persons engaged in industry, total (all classes).....	13, 098	3, 484	4, 244	3, 746	980	206	118	43	25	243
Proprietors and firm members.....	29	2	-----	13	4	-----	1	-----	-----	9
Principal salaried officers of corporations <sup>4</sup> .....	87	2	21	36	10	6	3	3	3	3
Other salaried officers and employees <sup>4</sup> .....	806	320	140	245	36	25	11	13	1	15
Wage earners (average for the year).....	12, 176	3, 160	4, 083	3, 452	930	175	108	27	21	210
Principal expenses:										
Salaries and wages—										
Principal officers of corporations <sup>4</sup> .....	\$644, 323	\$1, 500	\$154, 192	\$245, 049	\$50, 200	\$30, 445	\$11, 150	\$8, 900	\$10, 667	\$32, 220
Other salaried officers and employees <sup>4</sup> .....	\$2, 103, 045	\$947, 094	\$368, 090	\$580, 199	\$78, 174	\$68, 451	\$15, 654	\$10, 237	\$1, 500	\$38, 676
Wage earners.....	\$21, 264, 243	\$5, 455, 417	\$6, 691, 787	\$6, 635, 673	\$1, 628, 964	\$238, 010	\$119, 994	\$39, 115	\$24, 709	\$410, 579
Contract work.....	\$2, 051, 993	\$1, 062, 275	\$807, 558	\$115, 657	\$5, 235	\$50, 134	-----	-----	-----	\$11, 134
Supplies.....	\$13, 539, 522	\$8, 038, 202	\$3, 093, 277	\$1, 640, 510	\$556, 430	\$55, 198	\$53, 469	\$18, 159	\$2, 298	\$31, 979
Fuel.....	\$408, 321	\$227, 002	\$39, 848	\$27, 655	\$12, 001	\$12, 552	\$11, 370	-----	\$1, 035	\$25, 870
Purchased electric energy.....	\$3, 706, 898	\$2, 323, 293	\$776, 564	\$428, 784	\$87, 216	\$9, 003	\$10, 544	\$13, 147	\$460	\$57, 887
Expenditures for development (included above in "Principal expenses").....	\$7, 742, 000	\$3, 430, 000	\$2, 693, 000	\$618, 000	\$682, 000	\$34, 000	-----	-----	\$1, 000	\$284, 000
Value of products.....	\$83, 098, 029	\$46, 227, 087	\$17, 249, 892	\$13, 145, 832	\$3, 305, 749	\$1, 611, 283	\$299, 444	\$254, 998	\$44, 686	\$988, 288
Machinery and other equipment purchased during the year, total cost.....	\$4, 063, 429	\$2, 390, 035	\$591, 019	\$753, 511	\$97, 331	\$110, 978	\$100	\$27, 191	\$417	\$86, 847
Prime movers and electric motors driven by purchased energy, aggregate horsepower.....	180, 321	105, 058	30, 178	35, 386	2, 511	1, 143	1, 230	846	95	3, 874
Prime movers, total horsepower <sup>5</sup> .....	5, 609	780	1, 642	1, 030	215	665	615	-----	70	592
Steam engines—										
Number.....	38	3	9	10	4	-----	6	-----	-----	6
Horsepower.....	4, 205	360	1, 630	970	215	-----	540	-----	-----	490
Internal-combustion engines—										
Number.....	43	3	2	1	-----	20	3	-----	1	4
Horsepower.....	1, 364	420	12	60	-----	665	75	-----	40	92
Water wheels and water turbines—										
Number.....	2	-----	-----	-----	-----	-----	-----	-----	-----	1
Horsepower.....	40	-----	-----	-----	-----	-----	-----	-----	20	10
Electric motors driven by purchased energy—										
Number.....	6, 016	4, 361	607	768	62	31	15	33	2	72
Horsepower.....	174, 712	104, 278	28, 536	34, 356	2, 296	478	615	846	25	3, 282
Electric motors driven by energy generated by enterprises reporting:										
Number.....	4	-----	-----	4	-----	-----	-----	-----	-----	-----
Horsepower.....	280	-----	-----	280	-----	-----	-----	-----	-----	-----
Electric generators: <sup>6</sup>										
Number.....	8	-----	-----	7	-----	-----	-----	-----	1	-----
Kilowatts.....	680	-----	-----	614	-----	-----	-----	-----	75	-----
Fuel and electric energy consumed:										
Fuel—										
Coal—										
Anthracite..... tons, 2,240 pounds.....	38	-----	27	-----	11	-----	-----	-----	-----	-----
Bituminous..... tons, 2,000 pounds.....	100, 744	51, 423	23, 044	16, 400	3, 529	679	1, 758	-----	213	3, 638
Coke..... tons, 2,000 pounds.....	4, 942	4, 115	142	-----	18	-----	8	-----	-----	659
Fuel oils..... gallons.....	356, 752	246, 632	89, 701	-----	3, 500	6, 000	-----	-----	-----	10, 919
Gasoline and kerosene..... gallons.....	182, 585	57, 060	20, 554	10, 200	420	48, 928	2, 325	-----	2, 800	40, 298
Electric energy—										
Purchased..... kw.-hours.....	468, 894, 024	294, 844, 338	126, 507, 243	33, 065, 901	8, 017, 716	430, 000	386, 216	490, 638	52, 353	5, 099, 619
Generated by enterprises reporting..... kw.-hours.....	681, 404	-----	-----	661, 404	-----	-----	-----	-----	-----	-----

<sup>1</sup> Includes 1 reduction mill for which separate report was received.

<sup>2</sup> Clay, 1 enterprise; fuller's and filtering earths, 1; gold, lode, 3; granite, 2; iron ore, 3; marble, 1; sulphur and pyrites, 1; zinc, 1.

<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>4</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>5</sup> Includes 332 horsepower for inactive prime movers.

<sup>6</sup> Includes 164 kilowatts for inactive generators.

## VERMONT

On the basis of the industries canvassed for 1929, Vermont ranked thirty-fourth among the States in value of mineral products and thirty-third in number of wage earners employed in mining and quarrying industries. (See GENERAL EXPLANATIONS—Scope of the Census.) The value of products, as shown in Table 1, was 20.1 per cent greater in 1929 than in 1919. This increase is accounted for principally by the two leading industries—the quarrying of granite and slate. The marble-quarrying industry suffered a decrease of 13.3 per cent in value of products for 1929 as compared with 1919. Comparative figures for these industries are given in Table 2.

The corporation was the dominant form of organization among enterprises in the mining industries in Vermont in 1929. As shown in Table 3, corporations operated 59 per cent of all enterprises, employed 77 per cent of the wage earners, and produced 80.9 per cent of the total value of products. Other forms of organization include partnerships, enterprises operated by individuals, etc.

Table 4 shows the relatively large number of small enterprises as measured by the number of wage earners employed. Of the total number of enterprises employing wage earners, 80.6 per cent were in classes having not more than 50 wage earners. These enterprises employed 36.9 per cent of the total number of wage earners and contributed 31 per cent of the total value of products.

The statistics for the number of hours in the working week for wage earners, given in Table 5, show that 30.1 per cent of the wage earners were in the "Over 48 but under 54" class and about 27 per cent in the "54 and over but under 63" class. In the slate industry 64.9 per cent of the wage earners were in the "Over 48 but under 54" class.

Table 6 gives power-equipment figures for enterprises classified according to horsepower rating. Of the aggregate horsepower shown, 10 enterprises in the "1,000 or more" horsepower group reported 23,665 horsepower, or 60.5 per cent. This amount, together with 5,352 horsepower reported by 9 enterprises in the next smaller group, represents 74.2 per cent of the total shown.

The statistics for wage earners presented in Table 7, showing the changes in the numbers employed from month to month, reflect conditions prevailing in the industries during the census year.

Table 8 presents the 1929 statistics in detail for the State as a whole and for each industry for which separate figures can be given without disclosing, exactly or approximately, the data reported by individual enterprises.

The granite industry ranked first in the State, accounting for 37.9 per cent of the total value of products. This industry, together with the slate industry, produced 73.4 per cent of the total. Vermont ranked second among the States in 1929 in both the granite and the slate industries.

TABLE 1.—SUMMARY FOR ALL INDUSTRIES: 1929 AND 1919<sup>1</sup>

	ALL MINING AND QUARRYING INDUSTRIES		Per cent of increase or decrease (—)		ALL MINING AND QUARRYING INDUSTRIES		Per cent of increase or decrease (—)
	1929	1919			1929	1919	
Number of enterprises <sup>2</sup> .....	105	93	(9)	Principal expenses: <sup>3</sup>			
Number of mines and quarries.....	129	109	18.3	Salaries.....	\$783,428	\$448,733	74.6
Persons engaged, total.....	3,466	3,239	7.0	Wages.....	4,153,100	3,041,551	36.5
Proprietors and firm members.....	74	60	(9)	Contract work.....	27,974	91,750	-69.5
Salaried employees.....	4,238	243	-2.1	Supplies and materials.....	712,097	1,272,796	-44.1
Wage earners (average for the year) <sup>4</sup> .....	3,154	2,936	7.4	Fuel.....	133,004	220,276	-39.6
Power equipment (total horsepower).....	30,906	28,090	42.0	Purchased electric energy.....	484,677	205,122	136.3
				Value of products <sup>5</sup> .....	10,275,907	8,555,030	20.1

<sup>1</sup> See GENERAL EXPLANATIONS—Scope of the Census.

<sup>2</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>3</sup> Per cent not computed where base is less than 100.

<sup>4</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>5</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>6</sup> See GENERAL EXPLANATIONS—Expenses.

<sup>7</sup> See GENERAL EXPLANATIONS—Value of Products.

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TABLE 2.—SUMMARY FOR GRANITE, SLATE, AND MARBLE QUARRYING INDUSTRIES: 1929 AND 1919

	GRANITE <sup>1</sup>		SLATE <sup>1</sup>		MARBLE <sup>1</sup>		PER CENT OF INCREASE OR DECREASE (—)		
	1929	1919	1929	1919	1929	1919	Granite	Slate	Marble
Number of enterprises <sup>2</sup> .....	24	27	58	38	9	15	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Number of quarries.....	25	31	67	30	23	25	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Wage earners (average for the year) <sup>4</sup> .....	952	1,062	1,303	1,039	658	570	-10.4	25.4	15.4
Power equipment (total horsepower).....	15,411	10,739	10,141	6,447	10,077	7,354	43.1	57.3	37.0
Principal expenses: <sup>5</sup>									
Salaries.....	\$426,549	\$148,862	\$215,580	\$144,203	\$65,629	\$69,907	136.6	49.5	-6.2
Wages.....	\$1,393,739	\$1,225,256	\$1,701,192	\$976,143	\$785,579	\$553,075	13.8	74.3	42.0
Contract work.....		\$61,980	\$18,712	\$10,637				75.9	
Supplies and materials.....	\$270,004	\$778,489	\$181,747	\$226,644	\$150,528	\$180,320	-64.1	-23.6	-11.5
Fuel.....	\$94,105	\$135,472	\$20,323	\$25,838	\$4,278	\$13,349	-30.5	-21.3	-68.0
Purchased electric energy.....	\$146,007	\$39,379	\$148,400	\$97,221	\$131,090	\$37,211	270.8	52.6	252.3
Value of products.....	\$3,892,352	\$3,563,734	\$3,653,796	\$2,057,388	\$1,829,315	\$2,103,872	9.2	77.6	-13.3
Quantity (tons, 2,000 pounds).....	154,000	133,000	222,000	138,000	102,000	100,000	15.8	18.1	2.0

<sup>1</sup> See GENERAL EXPLANATIONS—Milling and Manufacturing.

<sup>2</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>3</sup> Per cent not computed where base is less than 100.

<sup>4</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>5</sup> See GENERAL EXPLANATIONS—Expenses.

<sup>6</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>7</sup> Quantity figures for 1919 not compiled by Census Bureau. Figures from Mineral Resources of the United States, 1919—U. S. Geological Survey.

TABLE 3.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products	INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products
ALL INDUSTRIES, total.....	105	129	3,154	\$10,275,907	SLATE, total.....	58	67	1,303	\$3,653,796
Corporations.....	62	79	2,429	8,311,799	Corporations.....	22	25	720	2,296,541
Other <sup>1</sup> .....	43	50	725	1,964,108	Other <sup>1</sup> .....	36	42	583	1,357,255
GRANITE, total.....	24	25	952	3,892,352	MARBLE, total.....	9	23	658	1,829,315
Corporations.....	18	18	813	3,288,999	Corporations.....	9	23	658	1,829,315
Other <sup>1</sup> .....	6	7	139	603,353	LIMESTONE, total.....	4	4	30	69,696
					Corporations.....	4	4	30	69,696

<sup>1</sup> Partnerships, enterprises operated by individuals, etc.

TABLE 4.—SIZE OF ENTERPRISES AS MEASURED BY NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products	INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products
ALL INDUSTRIES, total <sup>3</sup> .....	98	122	3,154	\$4,163,100	\$10,226,428	GRANITE, total.....	24	25	952	\$1,393,739	\$3,892,352
1 to 5.....	18	18	52	60,177	140,926	1 to 5.....	8	8	23	28,221	70,741
6 to 20.....	45	47	550	680,831	1,600,714	6 to 20.....	5	6	48	56,423	135,783
21 to 50.....	16	18	561	741,046	1,369,363	21 to 50.....	6	6	212	298,170	510,773
51 to 100.....	12	19	837	1,071,303	2,700,065	51 to 100.....	1	1	669	1,010,925	3,169,055
101 to 250.....	6	8	1,154	1,599,743	4,265,360	101 to 250.....	4	4			
251 to 500.....	1	12									
SLATE, total <sup>3</sup> .....	51	60	1,303	1,701,192	3,604,317	MARBLE, total.....	9	23	658	785,579	1,829,315
1 to 5.....	6	6	10	18,155	40,778	1 to 5.....	2	2	24	26,200	101,030
6 to 20.....	23	29	340	423,444	726,105	6 to 20.....	2	2			
21 to 50.....	9	11	315	406,689	799,081	21 to 50.....	4	7			
51 to 100.....	6	10	632	863,604	2,038,355	51 to 100.....	1	12	634	759,879	1,728,279
101 to 250.....	2	4									

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>3</sup> Exclusive of 7 enterprises employing no wage earners.

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TABLE 5.—PREVAILING HOURS OF LABOR PER WEEK FOR WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

[This table does not include data for enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to prevailing hours of labor. The number of enterprises in this class in Vermont was 20, distributed as follows: Granite, 6; limestone, 1; slate, 13. The combined value of products represented by these enterprises was \$170,504]

INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products	INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products
ALL INDUSTRIES, total <sup>1</sup> .....	85	109	3,077	\$4,070,115	\$10,105,403	GRANITE, total <sup>1</sup> .....	18	19	935	\$1,376,443	\$3,841,857
Not reported.....	12	12	91	94,676	168,072	44 and over but under 48.....	8	8	289	406,346	788,053
25 and over but under 36.....	1	1				48.....	10	11	646	970,097	3,053,204
44 and over but under 48.....	12	13	454	507,307	1,210,124	MARBLE, total.....	9	23	658	785,579	1,829,315
48.....	13	14	680	1,007,097	3,113,835	25 and over but under 36.....	1	1			
Over 48 but under 54.....	28	37	926	1,249,305	2,366,389	Over 48 but under 54.....	1	2			
54 and over but under 63.....	17	29				54 and over but under 63.....	6	18			
63 and over.....	2	3	926	1,151,730	3,246,983	63 and over.....	1	2	658	785,579	1,829,315
SLATE, total <sup>1</sup> .....	45	54	1,249	1,640,901	3,542,629						
Not reported.....	12	12	91	94,676	168,072						
44 and over but under 48.....	4	5									
48.....	2	2	196	105,340	476,359						
Over 48 but under 54.....	23	31	810	1,120,843	2,054,365						
54 and over but under 63.....	4	4	153	230,102	843,833						

<sup>1</sup> See headnote.

TABLE 6.—ENTERPRISES CLASSIFIED ACCORDING TO TOTAL RATING OF POWER EQUIPMENT: 1929

[This table does not include data for 20 enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for detailed power-equipment information. Of the 85 enterprises whose value of product was \$20,000 or more, no power equipment was reported by 2]

TYPE	Total, all sizes	RATING OF POWER EQUIPMENT FOR ENTERPRISES INDIVIDUALLY REPORTING TOTAL HORSEPOWER OF—					TYPE	Total, all sizes	RATING OF POWER EQUIPMENT FOR ENTERPRISES INDIVIDUALLY REPORTING TOTAL HORSEPOWER OF—					
		Less than 100	100 to 249	250 to 499	500 to 999	1,000 or more			Less than 100	100 to 249	250 to 499	500 to 999	1,000 or more	
Number of enterprises reporting power equipment <sup>1</sup> .....	83	29	22	13	9	10	Prime movers and electric motors driven by purchased energy, aggregate horsepower <sup>2</sup> —Continued.							
Prime movers and electric motors driven by purchased energy, aggregate horsepower.....	39,112	1,814	3,404	4,817	5,352	23,665	Horsepower rating of inactive prime movers, included above.....	1,060		35				1,025
Prime movers, total horsepower.....	4,738	157	315	910		3,350	Electric motors driven by purchased energy—							
Steam engines—							Number.....	1,318	112	153	142	200	711	
Number.....	65	8	2	11		44	Horsepower.....	34,374	1,657	3,149	3,001	5,362	20,315	
Horsepower.....	4,267	127	165	800		3,175	Electric motors driven by energy generated by enterprises reporting:							
Steam turbines—							Number.....	3			3			
Number.....	6		5			1	Horsepower.....	45			45			
Horsepower.....	170		20			150	Electric generators:							
Internal-combustion engines—							Number.....	2			2			
Number.....	9	1	4	3		1	Kilowatts.....	97			97			
Horsepower.....	195	30	80	60		25								
Water wheels and water turbines—														
Number.....	2		1	1										
Horsepower.....	106		60	56										

<sup>1</sup> See headnote.

<sup>2</sup> See Table 8 for total horsepower rating of power equipment for all enterprises.

TABLE 7.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1929

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

INDUSTRY	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
ALL INDUSTRIES, total.	3,154	3,162	3,210	3,227	3,108	3,212	3,228	3,160	3,273	3,251	3,147	3,005	<b>2,863</b>	87.6
Slate.....	1,303	1,450	1,477	1,456	1,257	1,291	1,301	1,248	1,275	1,209	1,248	1,190	<i>1,159</i>	77.1
Granite.....	952	904	912	921	941	976	983	987	997	1,000	984	950	<i>898</i>	36.6
Marble.....	658	656	670	672	666	685	675	661	702	674	643	595	<i>586</i>	83.3
Limestone.....	30	23	22	49	66	53	53	53	48	41	22	18	<i>24</i>	32.1
Other industries.....	202	129	<i>123</i>	129	188	207	216	211	251	237	250	262	240	48.8

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TABLE 8.—DETAILED STATISTICS FOR SELECTED INDUSTRIES: 1929

[This table presents statistics for each industry for which it is possible to give separate figures without disclosing data for individual enterprises. Two of the "Other industries," however, were of greater importance in the State than one of the industries shown separately]

	Total	Granite	Slate	Marble	Limestone	Other industries <sup>1</sup>
Number of enterprises <sup>2</sup> .....	105	24	58	9	4	10
Number of mines and quarries.....	129	25	67	23	4	10
Persons engaged in industry, total (all classes).....	3,466	1,048	1,461	684	43	230
Proprietors and firm members.....	74	6	66	—	—	2
Principal salaried officers of corporations <sup>3</sup> .....	54	23	21	6	—	4
Other salaried officers and employees <sup>3</sup> .....	184	67	71	20	4	22
Wage earners (average for the year).....	3,154	952	1,303	658	39	202
Principal expenses:						
Salaries and wages—						
Principal officers of corporations <sup>3</sup> .....	\$312,786	\$226,982	\$57,910	\$20,004	—	\$7,900
Other salaried officers and employees <sup>3</sup> .....	\$470,632	\$199,597	\$157,070	\$45,025	\$4,804	\$62,966
Wage earners.....	\$4,153,100	\$1,393,730	\$1,701,192	\$785,579	\$40,249	\$226,341
Contract work.....	\$27,974	—	\$18,712	—	—	\$9,262
Supplies.....	\$712,097	\$279,604	\$161,747	\$169,528	\$9,877	\$101,341
Fuel.....	\$133,004	\$94,105	\$20,323	\$4,278	\$3,707	\$10,591
Purchased electric energy.....	\$484,677	\$146,007	\$148,400	\$131,090	\$2,163	\$57,017
Expenditures for development (included above in "Principal expenses").....	\$845,000	\$501,000	\$49,000	\$179,000	—	\$116,000
Value of products.....	\$10,275,907	\$3,892,352	\$3,653,796	\$1,829,315	\$89,696	\$830,748
Machinery and other equipment purchased during the year, total cost.....	\$349,213	\$91,576	\$138,472	\$37,500	—	\$81,665
Prime movers and electric motors driven by purchased energy, aggregate horsepower.....	39,906	15,411	19,141	10,077	519	3,758
Prime movers, total horsepower <sup>4</sup> .....	4,995	4,130	260	—	380	225
Steam engines—						
Number.....	71	57	10	—	3	1
Horsepower.....	4,524	3,955	174	—	380	15
Steam turbines—						
Number.....	6	1	—	—	—	5
Horsepower.....	170	150	—	—	—	20
Internal-combustion engines—						
Number.....	9	1	1	—	—	7
Horsepower.....	195	25	30	—	—	140
Water wheels and water turbines—						
Number.....	2	—	1	—	—	1
Horsepower.....	100	—	56	—	—	50
Electric motors driven by purchased energy—						
Number.....	1,351	304	487	440	7	107
Horsepower.....	34,911	11,281	9,881	10,077	130	3,533
Electric motors driven by energy generated by enterprises reporting:						
Number.....	3	—	—	—	3	—
Horsepower.....	45	—	—	—	45	—
Electric generators:						
Number.....	2	—	—	—	2	—
Kilowatts.....	97	—	—	—	97	—
Fuel and electric energy consumed:						
Fuel—						
Coal—						
Anthracite..... tons, 2,240 pounds.....	481	16	126	191	—	68
Bituminous..... tons, 2,000 pounds.....	15,513	11,209	2,687	400	602	715
Coke..... tons, 2,000 pounds.....	395	—	—	40	—	355
Fuel oils..... gallons.....	115,278	113,778	—	1,500	—	—
Gasoline and kerosene..... gallons.....	31,624	18,637	761	500	—	11,726
Electric energy—						
Purchased..... kw.-hours.....	22,571,070	7,304,763	5,648,987	5,827,362	84,917	3,705,941
Generated by enterprises reporting..... kw.-hours.....	13,406	—	—	—	13,406	—

<sup>1</sup> Abrasive materials (scythestones), 1 enterprise; asbestos, 1; clay, 2; copper, 1; sand and gravel, 1; talc and soapstone, 4.

<sup>2</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>3</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>4</sup> Includes 1,060 horsepower for inactive prime movers.

## VIRGINIA

On the basis of the industries canvassed for 1929, Virginia ranked nineteenth among the States in value of mineral products and tenth in number of wage earners employed in mining and quarrying industries. (See GENERAL EXPLANATIONS—Scope of the Census.) Since the scope of the censuses for 1919 and 1929 was not the same as to the industries covered, comparisons as to the magnitude of the mining and quarrying industries can not be made directly between the statistics for the two years; but by revision of the figures to exclude data for all industries not canvassed at both censuses, comparison of the activities of the remaining industries is made possible. On this basis, the value of products, as shown in Table 1, was 2.2 per cent less in 1929 than in 1919. The limestone, granite, slate, and lead industries contributed appreciable increases during the decade, while the bituminous-coal, iron-ore, and pyrites industries accounted for the principal decreases among the mining industries. Comparative figures for the bituminous-coal industry are given in Table 2.

The corporation was the dominant form of organization among enterprises in the mining industries in Virginia in 1929. As shown in Table 3, corporations operated 73.7 per cent of all enterprises, employed 97.8 per cent of the wage earners, and produced 98 per cent of the total value of products. Other forms of organization include partnerships, enterprises operated by individuals, etc.

Table 4 shows the relatively large number of small enterprises as measured by the number of wage earners employed. Of the total number of enterprises in Virginia, 70.5 per cent were in classes having

not more than 50 wage earners. These enterprises employed only 12.5 per cent of the total number of wage earners and contributed 14.8 per cent of the total value of products.

The statistics for the length of the working week, given in Table 5, show that 61.8 per cent of the wage earners were employed 48 hours per week, while those employed 54 hours or more constituted 16.8 per cent. In the bituminous-coal industry 73 per cent of the wage earners were in the 48-hour-week class. In the limestone industry 91.4 per cent of the wage earners worked 54 hours and over.

Table 6 gives power-equipment figures for enterprises classified according to horsepower rating. Of the aggregate horsepower shown, 9 enterprises in the "2,500 or more" horsepower group reported 49,095 horsepower, or 44.5 per cent. This group, together with the 500-999 and 1,000-2,499 horsepower groups, accounted for 86.3 per cent of the aggregate.

The statistics for wage earners presented in Table 7, showing the changes in the numbers employed from month to month, reflect conditions prevailing in the industries during the census year.

Table 8 presents the 1929 statistics in detail for the State as a whole and for each industry for which separate figures can be given without disclosing, exactly or approximately, the data reported by individual enterprises.

The bituminous-coal industry ranked first in the State, accounting for 71.6 per cent of the total value of products. Virginia ranked ninth among the States in 1929 in the coal industry.

TABLE 1.—SUMMARY FOR ALL INDUSTRIES: 1929 AND 1919<sup>1</sup>

	ALL MINING AND QUARRYING INDUSTRIES			Per cent of increase or decrease (—)		ALL MINING AND QUARRYING INDUSTRIES			Per cent of increase or decrease (—)	
	1929		1919			1929		1919		
	All industries	Revised (for comparative purposes) <sup>2</sup>				All industries	Revised (for comparative purposes) <sup>2</sup>			
Number of enterprises <sup>3</sup> .....	190	179	202	-11.4						
Number of mines and quarries.....	208	190	216	-9.3						
Persons engaged, total.....	16,091	15,802	15,537	1.7						
Proprietors and firm members.....	59	59	71	( <sup>4</sup> )						
Salaried employees.....	\$ 770	\$ 728	919	-20.8						
Wage earners (average for the year) <sup>5</sup> .....	15,262	15,015	14,547	3.2						
Power equipment (total horsepower).....	111,921	107,316	57,880	85.4						
					Principal expenses: <sup>7</sup>					
					Salaries.....	\$1,866,053	\$1,751,054	\$1,690,162	3.6	
					Wages.....	14,837,500	14,554,452	16,108,249	-9.4	
					Contract work.....	17,089	17,089	340,851	-95.0	
					Supplies and materials.....	3,602,309	3,608,091	4,760,370	-24.2	
					Fuel.....	802,227	231,518	740,098	-68.7	
					Purchased electric energy.....	1,561,659	1,521,827	476,796	219.2	
					Value of products <sup>8</sup> .....	25,540,524	28,705,823	29,303,449	-2.2	

<sup>1</sup> See GENERAL EXPLANATIONS—Scope of the Census.

<sup>2</sup> The figures for 1929 have been adjusted to make them comparable with 1919. See GENERAL EXPLANATIONS—Scope of the Census.

<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>4</sup> Per cent not computed where base is less than 100.

<sup>5</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>6</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>7</sup> See GENERAL EXPLANATIONS—Expenses.

<sup>8</sup> See GENERAL EXPLANATIONS—Value of Products.

MINES AND QUARRIES—VIRGINIA

TABLE 2.—SUMMARY FOR BITUMINOUS-COAL INDUSTRY: 1929 AND 1919

	1929	1919 <sup>1</sup>	Per cent of increase or decrease (-)		1929	1919 <sup>1</sup>	Per cent of increase or decrease (-)	
Number of enterprises <sup>2</sup> .....	75	108	-30.6	Principal expenses—Continued.				
Number of mines.....	88	118	-25.4		Contract work.....	\$2,344	\$222,200	-98.0
Wage earners (average for the year) <sup>3</sup> .....	11,956	11,215	6.6		Supplies and materials.....	\$2,564,208	\$3,432,443	-25.3
Power equipment (total horsepower).....	72,126	41,630	73.3		Fuel.....	\$62,720	\$233,796	-77.0
Principal expenses: <sup>4</sup>					Purchased electric energy.....	\$1,061,402	\$430,263	141.6
Salaries.....	\$1,193,145	\$1,300,129	-8.2	Value of products.....	\$21,162,036	\$23,763,440	-10.9	
Wages.....	\$11,846,453	\$12,961,591	-8.6	Quantity (tons, 2,000 pounds).....	12,745,100	9,334,786	36.5	

<sup>1</sup> Includes 1 coal-mining enterprise on the Virginia-Kentucky State line reported as a Virginia operation.  
<sup>2</sup> See GENERAL EXPLANATIONS—The Enterprise.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons Engaged.  
<sup>4</sup> See GENERAL EXPLANATIONS—Expenses.  
<sup>5</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

TABLE 3.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products	INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products
ALL INDUSTRIES, total.....	190	208	15,202	\$29,540,524	GRANITE, total.....	5	5	200	\$861,347
Corporations.....	140	158	14,019	28,948,312	Corporations.....	5	5	200	861,347
Other <sup>1</sup> .....	50	50	943	592,212	SLATE, total.....	6	7	489	850,882
COAL, BITUMINOUS, total.....	75	88	11,956	21,162,036	Corporations <sup>2</sup> .....	6	7	489	850,882
Corporations.....	56	60	11,821	20,967,100	SAND AND GRAVEL, total.....	8	9	181	678,562
Other <sup>1</sup> .....	19	19	135	194,936	Corporations.....	8	9	181	678,562
LIMESTONE, total.....	63	64	1,270	3,011,095					
Corporations.....	40	41	1,113	2,736,042					
Other <sup>1</sup> .....	23	23	157	275,053					

<sup>1</sup> Partnerships, enterprises operated by individuals, etc.  
<sup>2</sup> Includes 1 other form of organization.

TABLE 4.—SIZE OF ENTERPRISES AS MEASURED BY NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products	INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products
ALL INDUSTRIES, total.....	190	208	15,202	\$14,837,569	\$29,540,524	LIMESTONE—Contd.					
1 to 5.....	46	46	168	138,219	322,339	1 to 5.....	21	21	73	\$60,000	\$157,385
6 to 20.....	55	58	674	597,137	1,377,115	6 to 20.....	27	28	353	251,741	555,228
21 to 50.....	33	34	1,063	999,585	2,072,594	21 to 50.....	6	6	182	182,628	612,762
51 to 100.....	24	24	1,726	1,684,317	4,012,077	51 to 100.....	8	8	662	608,594	1,786,320
101 to 250.....	19	21	2,914	2,530,070	4,296,832	101 to 250.....	1	1			
251 to 500.....	8	13	3,003	3,350,021	6,506,382	SLATE, total.....	6	7	489	360,029	850,882
501 to 1,000.....	3	3				6 to 20.....	1	1	90	67,269	349,120
1,001 to 2,500.....	1	2	5,709	5,588,170	10,353,185	21 to 50.....	2	2	399	292,700	501,762
2,501 and over.....	1	7				101 to 250.....	3	4			
COAL, BITUMINOUS, total.....	75	88	11,956	11,846,453	21,162,036	GRANITE, total.....	5	5	200	210,650	861,347
1 to 5.....	15	15	61	52,989	82,289	1 to 5.....	1	1			
6 to 20.....	11	11	145	142,423	219,178	6 to 20.....	1	1	200	210,650	861,347
21 to 50.....	12	12	421	376,245	710,177	21 to 50.....	1	1			
51 to 100.....	11	11	834	783,692	1,267,956	51 to 100.....	2	2			
101 to 250.....	14	15	2,240	2,060,218	3,334,161	SAND AND GRAVEL, total.....	8	9	181	212,054	678,562
251 to 500.....	7	12	2,537	2,838,816	5,105,091	6 to 20.....	4	4	49	65,122	195,280
501 to 1,000.....	3	3				21 to 50.....	4	5	132	146,932	483,282
1,001 to 2,500.....	1	2	5,709	5,588,170	10,353,185						
2,501 and over.....	1	7									
LIMESTONE, total.....	63	64	1,270	1,102,969	3,011,095						

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.  
<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.

MINES AND QUARRIES—VIRGINIA

TABLE 5.—PREVAILING HOURS OF LABOR PER WEEK FOR WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

[This table does not include data for enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to prevailing hours of labor. The number of enterprises in this class in Virginia was 42, distributed as follows: Coal, bituminous, 22; limestone, 20. The combined value of products represented by these enterprises was \$387,615]

INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products	INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products
ALL INDUSTRIES, total <sup>1</sup>	148	106	14,978	\$14,597,438	\$29,152,909	SLATE, total.....	6	7	489	\$360,029	\$850,882
Under 25.....	2	2	1,410	1,492,285	2,165,054	Over 48 but under 54.....	1	1	480	360,029	850,882
25 and over but under 35.....	6	7				54 and over but under 63.....	5	6			
36 and over but under 40.....	3	6	583	587,168	879,830	GRANITE, total.....	5	5	200	210,650	861,347
40.....	9	10	855	833,680	1,354,209	44 and over but under 48.....	1	1	200	210,650	861,347
44 and over but under 48.....	4	4	17	10,940	23,902	Over 48 but under 54.....	2	2			
48.....	46	54	9,257	9,216,641	17,964,640	54 and over but under 63.....	2	2			
Over 48 but under 54.....	9	10	333	269,321	890,697	SAND AND GRAVEL, total.....	8	9	181	212,054	675,562
54 and over but under 63.....	67	71	2,518	2,187,423	5,874,577	48.....	1	1	181	212,054	675,562
63 and over.....	2	2				48 and over but under 54.....	1	1			
COAL, BITUMINOUS, total <sup>1</sup>	53	66	11,803	11,716,400	20,985,001	Over 48 but under 54.....	1	1			
Under 25.....	2	2	1,410	1,492,285	2,165,054	54 and over but under 63.....	5	6			
25 and over but under 35.....	6	7				1,422	1,400,840	2,186,570	63 and over.....	1	1
36 and over but under 40.....	2	5	8,019	8,532,859	16,165,777						
40.....	6	7	352	290,419	467,600						
48.....	34	42	1,139	992,882	2,801,115						
54 and over but under 63.....	3	3				98	98,366	347,518			
LIMESTONE, total <sup>1</sup>	43	44	1,041	894,516	2,453,597						
36 and over but under 40.....	1	1									
48.....	4	4									
Over 48 but under 54.....	2	3									
4 and over but under 63.....	35	35									
3 and over.....	1	1									

<sup>1</sup> See headnote.

TABLE 6.—ENTERPRISES CLASSIFIED ACCORDING TO TOTAL RATING OF POWER EQUIPMENT: 1929

[This table does not include data for 42 enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for detailed power-equipment information. Of the 143 enterprises whose value of product was \$20,000 or more, no power equipment was reported by 7]

TYPE	Total, all sizes	RATING OF POWER EQUIPMENT FOR ENTERPRISES INDIVIDUALLY REPORTING TOTAL HORSEPOWER OF—						
		Less than 25	25 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more
Number of enterprises reporting power equipment <sup>1</sup> .....	141	7	27	32	22	24	20	9
Prime movers and electric motors driven by purchased energy, aggregate horsepower <sup>2</sup> .....	110,331	121	1,593	5,495	7,914	16,681	20,432	49,095
Prime movers, total horsepower.....	14,751	101	911	2,342	1,670	4,099	5,188	440
Steam engines—								
Number.....	130	2	14	28	25	37	19	5
Horsepower.....	11,666	20	577	1,750	1,370	3,599	3,910	490
Steam turbines—								
Number.....	2			1	1			
Horsepower.....	400			150	250			
Internal-combustion engines—								
Number.....	54	6	18	5	1		24	
Horsepower.....	2,185	81	334	442	50		1,278	
Water wheels and water turbines—								
Number.....	1					1		
Horsepower.....	500					500		
Horsepower rating of inactive prime movers, included above.....	506	2	9		100		395	
Electric motors driven by purchased energy—								
Number.....	2,535	2	37	115	177	334	586	1,284
Horsepower.....	95,580	20	682	3,153	6,244	12,582	24,244	48,655
Electric motors driven by energy generated by enterprises reporting:								
Number.....	101		15	16	8	60	2	
Horsepower.....	3,064		500	463	200	1,821	50	
Electric generators:								
Number.....	15		1	3	2	4	5	
Kilowatts.....	1,047		150	425	210	800	62	

<sup>1</sup> See headnote.

<sup>2</sup> See Table 8 for total horsepower rating of power equipment for all enterprises.

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TABLE 7.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1929

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

INDUSTRY	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Percent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
All industries, total	15,262	15,536	15,544	<b>15,679</b>	15,288	15,374	15,370	15,157	15,121	15,234	15,392	14,801	<i>14,645</i>	93.4
Coal, bituminous	11,956	<b>12,542</b>	12,485	12,378	11,846	11,785	11,782	<i>11,633</i>	11,609	11,878	12,024	11,700	11,719	92.8
Limestone	1,270	<i>957</i>	1,021	1,247	1,346	1,407	1,411	1,478	1,402	1,858	1,352	1,162	1,102	64.7
Slate	489	477	478	490	510	518	531	492	492	478	476	478	469	86.4
Granite	200	198	192	187	198	222	218	224	217	226	212	191	115	50.0
Sand and gravel	181	<i>170</i>	170	174	188	186	186	181	191	175	174	182	178	86.7
Sand, glass	66	80	80	89	89	94	94	45	45	42	40	40	40	42.6
Sandstone	40	<i>39</i>	39	39	48	48	49	49	49	49	48	48	48	70.6
Feldspar	19	18	19	18	18	20	17	18	18	19	19	19	21	81.0
Other industries	1,035	1,046	1,051	1,057	1,045	1,084	1,072	1,037	1,008	1,009	1,047	980	<i>963</i>	88.8

TABLE 8.—DETAILED STATISTICS FOR SELECTED INDUSTRIES: 1929

[This table presents statistics for each industry for which it is possible to give separate figures without disclosing data for individual enterprises. Certain of the "Other industries," however, were of greater importance in the State than some of the industries shown separately.]

	Total	Coal, bituminous	Limestone	Granite	Slate	Sand and gravel	Sandstone	Sand, glass	Feldspar	Other industries <sup>1</sup>
Number of enterprises <sup>2</sup>	190	75	63	5	6	8	3	3	4	23
Number of mines and quarries	208	88	64	5	7	9	3	3	4	26
Persons engaged in industry, total (all classes)	16,001	12,478	1,398	215	516	216	55	73	22	1,118
Proprietors and firm members	59	28	28	4	11	13	2	3	1	7
Principal salaried officers of corporations <sup>3</sup>	118	50	22	11	16	22	7	4	2	74
Other salaried officers and employees <sup>3</sup>	622	438	78	11	16	22	7	4	2	74
Wage earners (average for the year)	15,202	11,960	1,270	200	489	181	40	66	19	1,035
Principal expenses:										
Salaries and wages—										
Principal officers of corporations <sup>3</sup>	\$452,472	\$205,046	\$74,906	\$11,400	\$82,100	\$50,380	\$8,000	\$6,850		\$13,700
Other salaried officers and employees <sup>3</sup>	\$1,413,581	\$688,099	\$131,926	\$24,283	\$27,060	\$49,369	\$10,030	\$8,400	\$2,400	\$171,414
Wage earners	\$14,837,509	\$11,816,453	\$1,102,969	\$210,950	\$360,029	\$212,054	\$30,932	\$71,063	\$13,380	\$900,039
Contract work	\$17,089	\$2,344	\$4,344	\$4,836			\$5,505			
Supplies	\$9,692,399	\$2,564,208	\$470,068	\$129,654	\$124,431	\$54,822	\$22,429	\$28,886	\$1,160	\$290,111
Fuel	\$302,227	\$62,729	\$71,748	\$9,657	\$26,550	\$50,098	\$6,827	\$11,641	\$76	\$63,922
Purchased electric energy	\$1,501,059	\$1,061,402	\$137,378	\$36,490	\$9,014	\$29,786	\$29,213	\$10,046		\$247,730
Expenditures for development (included above in "Principal expenses")	\$843,000	\$73,000	\$34,000		\$5,000				\$1,000	\$280,000
Value of products	\$20,540,624	\$21,162,036	\$3,011,605	\$861,347	\$850,882	\$678,562	\$175,019	\$156,139	\$30,030	\$2,614,814
Machinery and other equipment purchased during the year, total cost	\$1,143,027	\$752,956	\$211,554	\$10,000	\$24,222	\$12,872	\$15,753	\$9,210	\$223	\$97,237
Prime movers and electric motors driven by purchased energy, aggregate horsepower	111,021	72,126	17,391	2,902	1,477	3,745	882	860	56	12,482
Prime movers, total horsepower <sup>4</sup>	15,435	2,082	7,720	512	947	1,075	120	460	56	1,563
Steam engines—										
Number	162	26	66	4	16	26	3	2	1	18
Horsepower	12,350	1,602	5,856	430	722	1,885	120	210	50	1,385
Steam turbines—										
Number	2	1						1		
Horsepower	400	150						250		
Internal-combustion engines—										
Number	54	4	29	4	1	2			2	12
Horsepower	2,185	240	1,364	82	225	90			6	178
Water wheels and water turbines—										
Number	1		1							
Horsepower	500		500							
Electric motors driven by purchased energy—										
Number	2,562	1,811	227	56	14	34	22	20		378
Horsepower	96,486	70,044	9,671	2,390	530	1,770	762	400		10,010
Electric motors driven by energy generated by enterprises reporting:										
Number	101	66	27		3			5		
Horsepower	3,064	2,227	394		75			308		
Electric generators:										
Number	15	6	2		1			2		4
Kilowatts	1,647	1,150	50		100			325		22
Fuel and electric energy consumed:										
Fuel—										
Coal—										
Anthracite, tons, 2,240 pounds	4,719									4,719
Bituminous, tons, 2,000 pounds	84,603	38,092	18,031	2,151	4,079	12,249	400	3,041		6,560
Coke, tons, 2,000 pounds	2,924		2,924							
Fuel oils, gallons	140,420	2,400	17,458	6,553	84,204	17,400		3,500		8,900
Gasoline and kerosene, gallons	129,728		37,893	17,153		21,533	25,083		510	27,586
Electric energy—										
Purchased, kw.-hours	99,427,850	62,998,714	8,301,003	2,042,029	595,652	1,891,350	2,148,023	738,683		20,712,386
Generated by enterprises reporting, kw.-hours	2,095,993	201,600	897,350		672,043			325,000		

<sup>1</sup> Barite, 1 enterprise; basalt, 1; clay, 2; gypsum, 2; lead, 1; manganese, 5; mica, 1; minor metals (titanium), 1; pyrites, 1; silica, 1; stone, miscellaneous, 2; talc and soapstone, 3; zinc, 1; miscellaneous minerals, 1.

<sup>2</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>3</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>4</sup> Includes 506 horsepower for inactive prime movers.

# WASHINGTON

On the basis of the industries canvassed for 1929, Washington ranked twenty-ninth among the States both in value of mineral products and in number of wage earners employed in mining and quarrying industries. (See GENERAL EXPLANATIONS—Scope of the Census.) Since the scope of the censuses for 1919 and 1929 was not the same as to the industries covered, comparisons as to the magnitude of the mining and quarrying industries can not be made directly between the statistics for the two years; but by revision of the 1929 figures to exclude data for the sand and gravel industry, comparison of the activities of the remaining industries is made possible. On this basis, the value of products, as shown in Table 1, was 7.9 per cent less in 1929 than in 1919.

Statistics for nonproducing (development only) enterprises are given in Table 2, and are not included in any of the other tables shown.

The industries reported for 1929, ranked according to value of products, are shown in Table 3. The bituminous-coal industry ranked first in the State, accounting for 64.6 per cent of the total product, while Washington ranked sixteenth among the States in 1929 in the coal industry.

The corporate form of organization was most common among enterprises in the mining industries in Washington in 1929. As shown in Table 4, corporations operated 68.9 per cent of all enterprises, employed 91.4 per cent of the wage earners, and produced 92.4 per cent of the total value of products. Other forms of organization include partnerships, enterprises operated by individuals, etc.

Table 5 shows the relatively large number of small

enterprises as measured by the number of wage earners employed. Of the total number of enterprises in Washington, 92.2 per cent were in classes having not more than 100 wage earners. These enterprises employed 34.6 per cent of the total number of wage earners and contributed 33 per cent of the total value of products. On the other hand, 7.8 per cent of the total number of enterprises had more than 100 wage earners each, employed 65.4 per cent of the total number of wage earners, and contributed 67 per cent of the total value of products.

The statistics for the length of the working week for wage earners, given in Table 6, show that the "25 and over but under 36" class accounted for the greatest number of wage earners, while the 48-hour-week class ranked second. In the bituminous-coal industry about 45 per cent of the wage earners were in the "25 and over but under 36" class.

Table 7 gives power-equipment figures for enterprises classified according to horsepower rating. Of the aggregate horsepower shown, 5 enterprises in the "2,500 or more" horsepower group, which includes the group "5,000-9,999," reported 22,344 horsepower, or 48.5 per cent.

The statistics for wage earners presented in Table 8, showing the changes in the numbers employed from month to month, reflect conditions prevailing in the industries during the census year.

Table 9 presents the 1929 statistics in detail for the State as a whole and for each industry for which separate figures can be given without disclosing, exactly or approximately, the data reported by individual enterprises.

TABLE 1.—SUMMARY FOR ALL INDUSTRIES: 1929 AND 1919 <sup>1</sup>

	ALL MINING AND QUARRYING INDUSTRIES			Per cent of increase or decrease (—)		ALL MINING AND QUARRYING INDUSTRIES			Per cent of increase or decrease (—)
	1929		1919			1929		1919	
	All industries	Revised (for comparative purposes) <sup>2</sup>				All industries	Revised (for comparative purposes) <sup>2</sup>		
Number of enterprises <sup>3</sup> .....	103	82	83	( <sup>4</sup> )					
Number of mines and quarries.....	121	90	93	( <sup>4</sup> )	Principal expenses: <sup>7</sup>				
Persons engaged, total.....	4,110	3,894	5,397	-27.8	Salaries.....	\$ 634,713	\$ 502,323	\$ 662,546	-24.2
Proprietors and firm members.....	33	30	33	( <sup>4</sup> )	Wages.....	3,068,667	5,796,027	7,465,652	-22.4
Salaried employees.....	<sup>5</sup> 259	<sup>5</sup> 212	314	-32.5	Contract work.....	21,551		86,624	-28.2
Wage earners (average for the year) <sup>6</sup> .....	3,818	3,652	5,050	-27.7	Supplies and materials.....	1,364,919	1,240,436	1,723,685	-61.5
Power equipment (total horsepower).....	47,702	39,321	37,998	3.5	Fuel.....	360,413	303,007	788,730	106.4
					Purchased electric energy.....	391,189	327,291	158,600	
					Value of products <sup>8</sup> .....	13,366,919	12,270,803	13,329,129	-7.9

<sup>1</sup> See GENERAL EXPLANATIONS—Scope of the Census.

<sup>2</sup> The figures for 1929 have been adjusted to make them comparable with 1919. See GENERAL EXPLANATIONS—Scope of the Census.

<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>4</sup> Per cent not computed where base is less than 100.

<sup>5</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>6</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>7</sup> See GENERAL EXPLANATIONS—Expenses.

<sup>8</sup> See GENERAL EXPLANATIONS—Value of Products.

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TABLE 2.—SUMMARY FOR NONPRODUCING ENTERPRISES: 1929

Number of enterprises.....	38	Principal expenses—Continued.	
Number of mines.....	38	Contract work.....	\$6,101
Wage earners (average for the year).....	313	Supplies, fuel, and purchased electric energy.....	169,548
Power equipment (total horsepower).....	2,779	Expenditures for development (included above in "Principal expenses").....	386,607
Principal expenses:			
Salaries.....	\$81,216		
Wages.....	411,160		

TABLE 3.—PRINCIPAL INDUSTRIES RANKED IN ORDER OF VALUE OF PRODUCTS: 1929

INDUSTRY	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Value of products	INDUSTRY	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Value of products
All industries, total.....	103	121	3,818	\$13,366,919	Limestone.....	14	15	202	\$802,701
Coal, bituminous.....	32	38	2,835	8,639,739	Basalt.....	8	8	94	311,867
Sand and gravel.....	21	31	166	1,096,116	Stone, miscellaneous.....	7	7	42	185,577
					Other industries <sup>3</sup> .....	21	22	479	2,390,919

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.  
<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.  
<sup>3</sup> Copper, 1 enterprise; gold, lode, 2; gold, placer, 1; granite, 3; iron ore, 1; lead, 2; magnesite, 1; marble, 1; mercury, 2; minor metals, 1; sandstone, 2; silica, 1; silver, 2; zinc, 1. See headnote, Table 9.

TABLE 4.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products	INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products
ALL INDUSTRIES, total.....	103	121	3,818	\$13,366,919	SAND AND GRAVEL, total.....	21	31	166	\$1,096,116
Corporations.....	71	86	3,488	12,349,785	Corporations.....	17	24	149	902,685
Other <sup>1</sup> .....	32	35	330	1,017,134	Other <sup>1</sup> .....	4	7	17	103,431
COAL, BITUMINOUS, total.....	32	38	2,835	8,639,739	LIMESTONE, total.....	14	15	202	802,701
Corporations.....	21	27	2,656	8,258,664	Corporations.....	10	11	158	633,208
Other <sup>1</sup> .....	11	11	179	381,085	Other <sup>1</sup> .....	4	4	44	169,493
					BASALT, total.....	8	8	94	311,867
					Corporations.....	4	4	65	153,461
					Other <sup>1</sup> .....	4	4	29	158,406

<sup>1</sup> Partnerships, enterprises operated by individuals, etc.

TABLE 5.—SIZE OF ENTERPRISES AS MEASURED BY NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products	INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products
ALL INDUSTRIES, total.....	103	121	3,818	\$6,068,667	\$13,366,919	SAND AND GRAVEL, total.....	21	31	166	\$272,640	\$1,096,116
1 to 5.....	35	44	132	188,004	632,202	1 to 5.....	11	19	46	75,840	315,905
6 to 20.....	42	44	466	686,610	1,502,127	6 to 20.....	9	11	120	190,800	780,211
21 to 50.....	14	16	451	611,837	1,591,311	21 to 50.....	1	1			
51 to 100.....	4	4	271	440,996	690,493	OTHER STONES, total <sup>3</sup> .....	6	7	97	142,890	263,336
101 to 250.....	6	8				1 to 5.....	1	1	97	142,890	263,336
251 to 500.....	1	1	2,498	4,191,220	8,950,786	6 to 20.....	4	4			
1,001 to 2,500.....	1	4				21 to 50.....	1	2			
COAL, BITUMINOUS, total.....	32	38	2,835	4,698,325	8,639,739	BASALT, total.....	8	8	94	115,226	311,867
1 to 5.....	5	5	18	21,002	37,108	1 to 5.....	2	2	94	115,226	311,867
6 to 20.....	14	14	176	238,483	350,630	6 to 20.....	5	5			
21 to 50.....	3	4	109	177,465	281,344	21 to 50.....	1	1			
51 to 100.....	3	3	210	343,695	593,317	STONE, MISCELLANEOUS, total.....	7	7	42	47,634	185,577
101 to 250.....	5	7				1 to 5.....	4	4	12	14,241	77,377
251 to 500.....	1	1	2,313	3,917,980	7,467,200	6 to 20.....	3	3	80	33,393	108,200
1,001 to 2,500.....	1	4									
LIMESTONE, total.....	14	15	202	244,374	802,701						
1 to 5.....	4	5	11	15,104	40,702						
6 to 20.....	5	5	50	50,596	130,208						
21 to 50.....	5	5	141	178,674	631,793						

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.  
<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.  
<sup>3</sup> Granite, 3 enterprises; marble, 1; sandstone, 2.

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TABLE 6.—PREVAILING HOURS OF LABOR PER WEEK FOR WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

[This table does not include data for enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to prevailing hours of labor. The number of enterprises in this class in Washington was 18, distributed as follows: Basalt, 1; coal, bituminous, 11; gold, placer, 1; lead, 2; silver, 2; stone, miscellaneous, 1. The combined value of products represented by these enterprises was \$154,768]

INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products	INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products			
ALL INDUSTRIES, total <sup>1</sup> .....	85	103	3,703	\$5,947,647	\$13,212,151	LIMESTONE, total.....	14	15	202	\$244,374	\$802,701			
Under 25.....	1	1	1,257	1,946,192	3,875,097	40.....	1	1	164	199,281	685,612			
25 and over but under 36.....	4	7				48.....	9	10						
36 and over but under 40.....	2	2				54 and over but under 63.....	4	4						
40.....	4	5	198	320,508	692,304	SAND AND GRAVEL, total.....	21	31	106	272,640	1,006,116			
Over 40 but under 44.....	3	3	602	1,154,331	1,909,602	25 and over but under 36.....	1	1	28	54,663	192,932			
44 and over but under 48.....	5	5	34	58,813	201,377	44 and over but under 48.....	8	10				74	119,048	558,765
48.....	43	49	1,201	1,841,109	3,098,754	54 and over but under 63.....	4	8				29	54,763	196,296
54 and over but under 63.....	15	19	348	534,549	2,232,411	63 and over.....	5	9	35	44,166	148,123			
63 and over.....	8	12	63	83,145	302,606	COAL, BITUMINOUS, total.....	21	27	2,782	4,614,160	8,526,997			
Under 25.....	1	1	1,250	1,935,724	3,851,619	Under 25.....	1	1	1,250	1,935,724	3,851,619			
25 and over but under 36.....	3	6				36 and over but under 40.....	2	2						
36 and over but under 40.....	1	1				40.....	1	1						
40.....	1	1	114	191,893	295,615	Over 40 but under 44.....	3	3	602	1,154,331	1,909,602			
Over 40 but under 44.....	3	3	602	1,154,331	1,909,602	48.....	11	14	796	1,332,212	2,470,161			
48.....	11	14	796	1,332,212	2,470,161									

<sup>1</sup> See headnote.

TABLE 7.—ENTERPRISES CLASSIFIED ACCORDING TO TOTAL RATING OF POWER EQUIPMENT: 1929

[This table does not include data for 18 enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for detailed power-equipment information. Of the 85 enterprises whose value of product was \$20,000 or more, no power equipment was reported by 2]

TYPE	Total, all sizes	RATING OF POWER EQUIPMENT FOR ENTERPRISES INDIVIDUALLY REPORTING TOTAL HORSEPOWER OF--					
		Less than 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more
Number of enterprises reporting power equipment <sup>1</sup> .....	83	24	23	17	9	5	5
Prime movers and electric motors driven by purchased energy, aggregate horsepower <sup>2</sup> .....	46,040	1,185	3,650	5,663	6,328	6,870	22,344
Prime movers, total horsepower.....	9,024	640	2,265	1,594	2,815	425	1,885
Steam engines—							
Number.....	48	3	3	15	16	6	5
Horsepower.....	5,534	100	275	919	1,990	425	1,875
Internal-combustion engines—							
Number.....	65	17	27	14	7		
Horsepower.....	3,405	540	1,840	675	350		
Water wheels and water turbines—							
Number.....	7		1		5		1
Horsepower.....	635		150		475		10
Horsepower rating of inactive prime movers, included above.....	775		30	155	190		400
Electric motors driven by purchased energy—							
Number.....	962	40	43	103	94	118	504
Horsepower.....	30,416	545	1,385	4,069	3,513	6,445	20,459
Electric motors driven by energy generated by enterprises reporting:							
Number.....	20		20				
Horsepower.....	311		311				
Electric generators:							
Number.....	10		5	1	3		1
Kilowatts.....	818		312	2	204		300

<sup>1</sup> See headnote.

<sup>2</sup> See Table 9 for total horsepower rating of power equipment for all enterprises.

TABLE 8.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1929

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

INDUSTRY <sup>1</sup>	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
All industries, total.....	3,818	3,757	3,732	3,882	3,880	3,801	<b>3,724</b>	3,824	3,744	3,848	3,848	3,926	3,849	94.9
Coal, bituminous.....	2,835	3,030	3,095	3,007	2,909	2,755	2,681	2,658	<i>2,574</i>	2,675	2,760	2,877	2,995	83.2
Limestone.....	202	163	<i>100</i>	198	232	251	212	206	197	268	235	191	173	37.6
Sand and gravel.....	166	129	136	153	158	190	181	205	197	190	176	160	111	54.1
Basalt.....	94	60	<i>58</i>	71	81	65	84	106	131	123	111	127	114	44.3
Stone, miscellaneous.....	42	7	8	33	33	30	29	78	79	79	68	55	7	8.9
Other stones.....	97	89	91	96	99	98	101	106	100	100	80	111	81	73.0
Other industries.....	382	279	<i>244</i>	324	368	412	436	465	466	409	409	405	368	62.4

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TABLE 9.—DETAILED STATISTICS FOR SELECTED INDUSTRIES: 1929

[This table presents statistics for each industry for which it is possible to give separate figures without disclosing data for individual enterprises. Certain of the "Other industries," however, were of greater importance in the State than some of the industries shown separately]

	Total	Coal, bituminous	Sand and gravel	Limestone	Basalt	Stone, miscellaneous	Other stones <sup>1</sup>	Other industries <sup>2</sup>
Number of enterprises <sup>3</sup> .....	103	32	21	14	8	7	6	15
Number of mines and quarries.....	121	38	31	15	8	7	7	15
Persons engaged in industry, total (all classes).....	4, 110	2, 977	216	223	111	49	108	426
Proprietors and firm members.....	33	14	3	1	6	2	—	7
Principal salaried officers of corporations <sup>4</sup> .....	50	17	14	3	2	—	7	7
Other salaried officers and employees <sup>4</sup> .....	209	111	33	17	9	5	4	30
Wage earners (average for the year).....	3, 818	2, 835	166	202	94	42	97	382
Principal expenses:								
Salaries and wages—								
Principal officers of corporations <sup>4</sup> .....	\$167, 420	\$41, 775	\$55, 775	\$6, 350	\$12, 400	—	\$22, 820	\$28, 300
Other salaried officers and employees <sup>4</sup> .....	\$467, 293	\$254, 584	\$76, 615	\$26, 160	\$16, 340	\$5, 260	\$16, 548	\$71, 736
Wage earners.....	\$6, 068, 667	\$4, 608, 325	\$272, 640	\$244, 374	\$115, 226	\$47, 634	\$142, 800	\$547, 578
Contract work.....	\$21, 551	—	\$21, 551	—	—	—	—	—
Supplies.....	\$1, 364, 010	\$606, 088	\$124, 483	\$181, 508	\$38, 887	\$54, 052	\$13, 906	\$305, 275
Fuel.....	\$360, 418	\$60, 858	\$56, 806	\$9, 594	\$28, 184	\$4, 423	\$3, 910	\$201, 638
Purchased electric energy.....	\$301, 159	\$232, 000	\$63, 868	\$23, 345	\$631	\$481	\$9, 855	\$60, 070
Expenditures for development (included above in "Principal expenses").....	\$380, 000	\$249, 000	—	\$12, 000	\$8, 000	\$14, 000	—	\$102, 000
Value of products.....	\$13, 366, 919	\$8, 639, 739	\$1, 096, 116	\$802, 701	\$311, 867	\$185, 577	\$263, 336	\$2, 067, 583
Machinery and other equipment purchased during the year, total cost.....	\$489, 583	\$183, 352	\$119, 391	\$81, 062	\$9, 249	\$2, 165	\$13, 000	\$80, 864
Prime movers and electric motors driven by purchased energy, aggregate horsepower.....	47, 702	27, 302	8, 381	3, 094	1, 520	591	1, 523	5, 201
Prime movers, total horsepower <sup>5</sup> .....	10, 351	3, 767	2, 700	694	1, 445	555	150	1, 040
Steam engines—								
Number.....	60	24	21	5	7	1	1	1
Horsepower.....	6, 311	3, 707	1, 465	234	645	30	150	80
Internal-combustion engines—								
Number.....	65	1	20	12	14	7	—	11
Horsepower.....	3, 405	50	1, 235	460	800	525	—	335
Water wheels and water turbines—								
Number.....	7	1	—	—	—	—	—	6
Horsepower.....	635	10	—	—	—	—	—	625
Electric motors driven by purchased energy—								
Number.....	988	602	110	45	1	4	85	161
Horsepower.....	37, 351	23, 535	5, 081	2, 400	75	36	1, 373	4, 251
Electric motors driven by energy generated by enterprises reporting:								
Number.....	20	—	5	—	—	—	6	9
Horsepower.....	311	—	40	—	—	—	145	126
Electric generators: <sup>6</sup>								
Number.....	10	3	2	—	1	—	1	3
Kilowatts.....	818	500	30	—	2	—	150	136
Fuel and electric energy consumed:								
Fuel—								
Coal, bituminous..... tons, 2,000 pounds.....	59, 164	29, 700	2	1, 004	1, 260	—	242	26, 896
Coke..... tons, 2,000 pounds.....	1	—	—	—	—	—	—	1
Fuel oils..... gallons.....	935, 439	—	619, 139	10, 040	76, 412	31, 200	60, 100	138, 548
Gasoline and kerosene..... gallons.....	188, 818	—	81, 967	20, 287	31, 846	16, 000	1, 000	37, 718
Electric energy—								
Purchased..... kw.-hours.....	42, 725, 958	20, 551, 356	4, 044, 675	2, 226, 814	—	60, 140	360, 805	6, 482, 168
Generated by enterprises reporting..... kw.-hours.....	527, 050	—	33, 300	—	—	—	200, 000	293, 756

<sup>1</sup> Granite, 3 enterprises; marble, 1; sandstone, 2.  
<sup>2</sup> Copper, 1 enterprise; gold, lode, 2; gold, placer, 1; iron ore, 1; lead, 2; magnesite, 1; mercury, 2; minor metals, 1; silica, 1; silver, 2; zinc, 1.  
<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.  
<sup>4</sup> Not including data for salaried officers and employees of "Central Administrative" offices.  
<sup>5</sup> Includes 775 horsepower for inactive prime movers.  
<sup>6</sup> Includes 500 kilowatts for inactive generators.

## WEST VIRGINIA

On the basis of the industries canvassed for 1929, West Virginia ranked second among the States both in value of mineral products and in number of wage earners employed in mining and quarrying industries. (See GENERAL EXPLANATIONS—Scope of the Census.) Since the scope of the censuses for 1919 and 1929 was not the same as to the industries covered, comparisons as to the magnitude of the mining and quarrying industries can not be made directly between the statistics for the two years; but by revision of the figures to exclude data for industries not canvassed at both censuses, comparison of the activities of the remaining industries is made possible. On this basis, the value of products, as shown in Table 1, was 13.4 per cent greater in 1929 than in 1919. This increase is accounted for principally by the increase in the production and value of bituminous coal, for which comparative figures are given in Table 2. Although the value of products of the limestone industry showed an increase from \$1,927,490 to \$3,507,603 during the decade, much of this is accounted for by the inclusion of data for 1929 of limestone produced in connection with lime and cement manufacture.

The corporation was the dominant form of organization among enterprises in the mining industries in West Virginia in 1929. As shown in Table 3, corporations operated 84.7 per cent of all enterprises, employed 98.3 per cent of the wage earners, and produced 98.6 per cent of the total value of products. Other forms of organization include partnerships, enterprises operated by individuals, etc.

Table 4 shows the relatively large number of small enterprises as measured by the number of wage earners

employed. Of the total number of enterprises in West Virginia, 56.9 per cent were in classes having not more than 100 wage earners. These enterprises employed only 13.2 per cent of the total number of wage earners and contributed 11.3 per cent of the total value of products.

The statistics for the number of hours in the working week, given in Table 5, show that the 48-hour week predominated, with 79.6 per cent of the wage earners employed, while the 40-hour week ranked second. In the bituminous-coal industry 80.7 per cent of the wage earners were employed 48 hours per week.

Table 6 gives power-equipment figures for enterprises classified according to horsepower rating. Of the aggregate horsepower shown, 135 enterprises in the 1,000–2,499 group reported 209,742 horsepower, or 31.6 per cent, while all enterprises reporting 500 or more accounted for 607,291 horsepower, or 91.4 per cent of the aggregate for the State.

The statistics for wage earners presented in Table 7, showing the changes in the numbers employed from month to month, reflect conditions prevailing in the industries during the census year.

Table 8 presents the 1929 statistics in detail for the State as a whole and for each industry for which separate figures can be given without disclosing, exactly or approximately, the data reported by individual enterprises. The bituminous-coal industry ranked first in the State, accounting for 96.9 per cent of the total product, and West Virginia ranked second among the States in 1929 in the bituminous-coal industry, contributing 22.5 per cent of the total value of products for the industry in the United States.

TABLE 1.—SUMMARY FOR ALL INDUSTRIES: 1929 AND 1919<sup>1</sup>

	ALL MINING AND QUARRYING INDUSTRIES			Per cent of increase or decrease (—)		ALL MINING AND QUARRYING INDUSTRIES			Per cent of increase or decrease (—)
	1929		1919 <sup>2</sup>			1929		1919 <sup>2</sup>	
	All industries	Revised (for comparative purposes) <sup>3</sup>				All industries	Revised (for comparative purposes) <sup>3</sup>		
Number of enterprises <sup>4</sup> .....	740	723	963	—24.9					
Number of mines and quarries.....	891	870	1,325	—34.3					
Persons engaged, total.....	106,747	106,342	95,295	11.0					
Proprietors and firm members.....	169	168	201	—42.3					
Salaried employees.....	5,166	5,039	6,494	—21.0					
Wage earners (average for the year) <sup>5</sup> .....	101,422	101,085	88,510	14.2					
Power equipment (total horsepower).....	870,544	664,530	366,028	81.6					
					Principal expenses: <sup>6</sup>				
					Salaries.....	\$12,430,768	\$12,266,600	\$12,440,224	—1.4
					Wages.....	128,906,460	128,417,959	107,161,515	19.8
					Contract work.....	294,306	292,028	406,681	—28.0
					Supplies and materials.....	25,208,830	25,038,260	26,512,225	—5.6
					Fuel.....	923,310	836,874	2,837,775	—70.5
					Purchased electric energy.....	8,412,372	8,385,323	2,956,911	183.6
					Value of products <sup>7</sup> .....	223,980,754	222,316,885	196,088,316	13.4

<sup>1</sup> See GENERAL EXPLANATIONS—Scope of the Census.

<sup>2</sup> The figures for 1929 and 1919 have been adjusted to make them comparable. See GENERAL EXPLANATIONS—Scope of the Census.

<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>4</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>5</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>6</sup> See GENERAL EXPLANATIONS—Expenses.

<sup>7</sup> See GENERAL EXPLANATIONS—Value of Products.

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TABLE 2.—SUMMARY FOR BITUMINOUS-COAL INDUSTRY: 1929 AND 1919

	1929	1919	Per cent of increase or decrease (-)		1929	1919	Per cent of increase or decrease (-)
Number of enterprises <sup>1</sup> .....	686	926	-25.9	Principal expenses—Continued.			
Number of mines.....	830	1,287	-35.5	Fuel.....	\$735,159	\$2,725,087	-73.0
Wage earners (average for the year) <sup>2</sup> .....	99,217	87,095	13.9	Purchased electric energy.....	\$8,124,326	\$2,853,341	184.7
Power equipment (total horsepower).....	642,878	355,422	80.9	Value of products, total.....	\$217,022,962	\$193,108,343	12.4
Principal expenses: <sup>3</sup>				Coal:			
Salaries.....	\$11,969,042	\$12,267,562	-2.4	Quantity (tons, 2,000 pounds).....	139,632,000	77,617,000	79.1
Wages.....	\$126,350,696	\$105,761,150	19.5	Value at mine.....	\$216,776,000	\$192,953,000	12.3
Contract work.....	\$292,028	\$405,581	-28.0	Other products.....	\$247,000	\$155,000	50.4
Supplies and materials.....	\$24,293,487	\$25,983,284	-6.5				

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.  
<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>3</sup> See GENERAL EXPLANATIONS—Expenses.  
<sup>4</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

TABLE 3.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products	INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products
ALL INDUSTRIES, total.....	740	891	101,422	\$223,930,754	LIMESTONE, total.....	19	19	1,319	\$3,507,603
Corporations.....	627	776	99,717	220,906,081	Corporations.....	15	15	1,247	3,231,879
Other <sup>1</sup> .....	113	115	1,705	3,024,673	Other <sup>1</sup> .....	4	4	72	225,724
COAL, BITUMINOUS, total.....	686	830	99,217	217,022,962	SAND AND GRAVEL, total.....	17	21	337	1,613,869
Corporations.....	582	724	97,639	214,411,690	Corporations <sup>2</sup> .....	17	21	337	1,613,869
Other <sup>1</sup> .....	104	106	1,578	2,611,272					

<sup>1</sup> Partnerships, enterprises operated by individuals, etc.

<sup>2</sup> Includes 1 other form of organization.

TABLE 4.—SIZE OF ENTERPRISES AS MEASURED BY NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products	INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products
ALL INDUSTRIES, total.....	740	891	101,422	\$128,906,460	\$223,930,754	COAL, BITUMINOUS, total.....	686	830	99,217	\$126,350,696	\$217,022,962
1 to 5.....	100	101	310	316,981	591,255	1 to 5.....	92	92	278	283,087	491,157
6 to 20.....	101	107	1,281	1,440,278	2,831,113	6 to 20.....	83	87	1,065	1,157,901	1,868,707
21 to 50.....	112	114	3,820	4,119,094	7,223,512	21 to 50.....	95	96	3,291	3,435,123	5,251,620
51 to 100.....	108	117	8,008	8,997,740	14,733,089	51 to 100.....	103	112	7,553	8,602,307	13,830,694
101 to 250.....	191	222	30,986	37,062,867	62,665,371	101 to 250.....	186	214	30,164	36,260,368	60,870,727
251 to 500.....	102	153	35,461	46,177,399	78,900,752	251 to 500.....	101	152	35,210	45,819,719	77,724,376
501 to 1,000.....	21	44	12,915	17,965,087	29,578,899	501 to 1,000.....	21	44	12,915	17,965,087	29,578,899
1,001 to 2,500.....	3	15	8,641	12,827,104	27,466,783	1,001 to 2,500.....	3	15	8,641	12,827,104	27,466,783
2,501 and over.....	2	18				2,501 and over.....	2	18			

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.

MINES AND QUARRIES—WEST VIRGINIA

TABLE 5.—PREVAILING HOURS OF LABOR PER WEEK FOR WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

[This table does not include data for enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to prevailing hours of labor. The number of enterprises in this class in West Virginia was 144, distributed as follows: Coal, bituminous, 141; limestone, 2; sandstone, 1. The combined value of products represented by these enterprises was \$1,103,477.]

INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products	INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products
ALL INDUSTRIES, total <sup>1</sup>	596	747	100,604	\$128,083,675	\$222,767,277	COAL, BITUMINOUS—Continued.					
Under 25	9	10	610	521,908	850,424	40	36	41	6,224	\$8,595,900	\$15,099,568
25 and over but under 36	20	29	3,930	4,512,460	7,118,148	Over 40 but under 44	6	7	1,323	1,740,156	2,936,227
36 and over but under 40	4	4	300	339,556	460,198	44 and over but under 48	6	13	2,001	2,881,698	4,289,142
40	37	42	6,284	8,640,340	15,769,376	48	447	558	70,433	100,353,089	171,124,888
Over 40 but under 44	6	7	1,323	1,740,156	2,936,227	54 and over but under 63	16	26	4,392	6,598,202	13,397,890
44 and over but under 48	6	13	2,001	2,881,698	4,289,142	63 and over	1	1			
48	455	566	80,032	100,999,150	172,370,468	LIMESTONE, total <sup>1</sup>	17	17	1,312	1,458,460	3,496,103
Over 48 but under 54	8	73	73	105,365	300,030	48	6	6	573	604,747	1,107,674
54 and over but under 63	50	66	6,071	8,348,072	18,057,059	54 and over but under 63	11	11	739	853,713	2,388,429
63 and over	2	2				SAND AND GRAVEL, total.	17	21	337	488,501	1,613,890
COAL, BITUMINOUS, total <sup>1</sup>	545	689	98,413	125,542,999	215,881,985	Over 48 but under 54	3	4	15	21,545	89,135
Under 25	9	10	610	521,908	850,424	54 and over but under 63	13	16	322	466,956	1,524,734
25 and over but under 36	20	29	3,930	4,512,460	7,118,148	63 and over	1	1			
36 and over but under 40	4	4	300	339,556	460,198						

<sup>1</sup> See headnote.

TABLE 6.—ENTERPRISES CLASSIFIED ACCORDING TO TOTAL RATING OF POWER EQUIPMENT: 1929

[This table does not include data for 144 enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for detailed power-equipment information. Of the 596 enterprises whose value of product was \$20,000 or more, no power equipment was reported by 24.]

TYPE	Total, all sizes	RATING OF POWER EQUIPMENT FOR ENTERPRISES INDIVIDUALLY REPORTING TOTAL HORSEPOWER OF—								
		Less than 25	25 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 to 4,999	5,000 to 9,999	10,000 or more
Number of enterprises reporting power equipment <sup>1</sup>	572	0	36	101	104	121	135	50	13	3
Prime movers and electric motors driven by purchased energy, aggregate horsepower <sup>2</sup>	664,362	140	2,068	17,033	37,821	86,237	209,742	176,368	82,341	52,603
Prime movers, total horsepower	105,347	33	485	4,866	8,254	10,620	20,678	23,914	30,307	100
Steam engines—										
Number	351		8	40	67	63	89	54	30	
Horsepower	64,918		330	4,379	6,544	9,941	22,528	15,651	5,545	
Steam turbines—										
Number	38			1	1		6	9	21	
Horsepower	32,110			200	250		4,145	3,367	24,107	
Internal-combustion engines—										
Number	66	3	5	9	22	16	1	3	5	2
Horsepower	3,810	33	155	287	1,460	679	5	406	505	190
Water wheels and water turbines—										
Number	3							3		
Horsepower	4,500							4,500		
Horsepower rating of inactive prime movers, included above	8,993			225	748	1,840	2,245	1,445	2,400	
Electric motors driven by purchased energy—										
Number	14,664	12	92	483	852	2,173	4,852	4,039	1,260	901
Horsepower	550,015	116	1,683	12,167	29,567	75,617	183,064	152,454	52,034	52,413
Electric motors driven by energy generated by enterprises reporting:										
Number	2,787		13	244	280	431	940	248	631	
Horsepower	91,914		240	7,081	5,487	12,190	28,811	10,481	27,024	
Electric generators:										
Number	169			18	27	31	55	20	18	
Kilowatts	54,032			3,215	3,780	5,309	16,142	7,328	18,258	

<sup>1</sup> See headnote.

<sup>2</sup> See Table 8 for total horsepower rating of power equipment for all enterprises.

TABLE 7.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1929

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

INDUSTRY	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
All industries, total	101,422	101,113	101,897	101,621	100,699	<b>100,486</b>	100,595	100,487	101,601	100,981	102,630	103,123	101,890	97.4
Coal, bituminous	99,217	<b>99,248</b>	99,959	99,800	98,639	98,044	98,190	<b>98,042</b>	99,073	98,610	100,360	100,925	100,013	97.1
Limestone	1,319	<b>1,096</b>	1,152	1,310	1,203	1,493	1,480	1,485	1,559	1,405	1,318	1,283	1,036	66.5
Sand and gravel	337	<b>294</b>	297	317	329	347	345	348	365	360	366	343	340	80.5
Millstones and pulpstones	121	<b>84</b>	95	104	125	139	154	153	153	145	128	106	63	44.2
Other industries	428	391	394	390	403	403	426	469	461	461	459	461	433	84.6

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TABLE 8.—DETAILED STATISTICS FOR SELECTED INDUSTRIES: 1929

[This table presents statistics for each industry for which it is possible to give separate figures without disclosing data for individual enterprises. One of the "Other industries," however, was of greater importance in the State than one of the industries shown separately.]

	Total <sup>1</sup>	Coal, bituminous <sup>1</sup>	Limestone	Sand and gravel	Millstones and pulpstones	Other industries <sup>1</sup>
Number of enterprises <sup>1</sup> .....	740	686	19	17	9	9
Number of mines and quarries.....	891	830	19	21	9	12
Persons engaged in industry, total (all classes).....	106,747	104,349	1,307	405	148	448
Proprietors and firm members.....	169	161	2	1	3	2
Principal salaried officers of corporations <sup>4</sup> .....	581	545	3	20	9	4
Other salaried officers and employees <sup>4</sup> .....	4,575	4,426	78	47	15	14
Wage earners (average for the year).....	101,422	99,217	1,319	337	121	428
Principal expenses:						
Salaries and wages—						
Principal officers of corporations <sup>4</sup> .....	\$2,294,799	\$2,178,617	\$4,586	\$71,000	\$30,800	\$9,796
Other salaried officers and employees <sup>4</sup> .....	\$10,135,959	\$9,760,425	\$172,685	\$93,065	\$51,708	\$28,015
Wage earners.....	\$128,906,460	\$126,350,606	\$1,465,548	\$488,501	\$164,805	\$486,910
Contract work.....	\$294,306	\$292,028		\$2,278		
Supplies.....	\$25,208,830	\$24,293,487	\$517,366	\$170,570	\$38,000	\$104,317
Fuel.....	\$923,310	\$735,159	\$52,926	\$86,436	\$9,125	\$45,664
Purchased electric energy.....	\$8,412,372	\$8,124,326	\$181,038	\$27,049	\$14,772	\$65,187
Expenditures for development (included above in "Principal expenses").....	\$2,678,000	\$2,660,000	\$10,000		\$8,000	
Value of products.....	\$223,930,754	\$217,022,982	\$3,507,603	\$1,613,869	\$470,523	\$1,306,707
Machinery and other equipment purchased during the year, total cost.....	\$8,271,684	\$7,745,887	\$102,272	\$107,763	\$11,042	\$304,720
Prime movers and electric motors driven by purchased energy, aggregate horsepower.....	670,544	642,878	15,550	6,014	2,152	3,950
Prime movers, total horsepower <sup>5</sup> .....	107,923	98,300	3,380	4,370	500	1,277
Steam engines—						
Number.....	398	285	41	53	9	10
Horsepower.....	67,404	59,409	3,261	3,447	340	1,037
Steam turbines—						
Number.....	38	38				
Horsepower.....	32,119	32,119				
Internal-combustion engines—						
Number.....	66	30	6	20	5	5
Horsepower.....	3,810	2,272	125	923	250	240
Water wheels and water turbines—						
Number.....	3	3				
Horsepower.....	4,500	4,500				
Electric motors driven by purchased energy—						
Number.....	14,810	14,331	285	50	50	85
Horsepower.....	562,621	544,578	12,164	1,644	1,562	2,673
Electric motors driven by energy generated by enterprises reporting:						
Number.....	2,787	2,786				1
Horsepower.....	91,914	91,839				75
Electric generators: <sup>6</sup>						
Number.....	169	169				
Kilowatts.....	54,032	54,032				
Fuel and electric energy consumed:						
Fuel—						
Coal, bituminous..... tons, 2,000 pounds.....	567,467	511,284	13,893	28,575	975	12,740
Fuel oils..... gallons.....	75,887	7,160	7,602	61,125		
Gasoline and kerosene..... gallons.....	75,436	15,508	30,285	16,943		12,640
Gas—						
Natural..... M cubic feet.....	73,896	42,684		24,505	3,277	3,430
Manufactured..... M cubic feet.....	13,984	1,144		12,840		
Electric energy—						
Purchased..... kw.-hours.....	530,108,189	515,737,656	16,002,272	834,410	900,585	2,633,263
Generated by enterprises reporting..... kw.-hours.....	113,526,744	113,526,744				

<sup>1</sup> Includes data for 1 coal-mining enterprise on Kentucky-West Virginia State line reported as a West Virginia operation.

<sup>2</sup> Abrasive materials, 1 enterprise; clay, 2; sand, glass, 3; sandstone, 2; stone, miscellaneous, 1.

<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>4</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>5</sup> Includes 8,993 horsepower for inactive prime movers.

<sup>6</sup> Includes 6,646 kilowatts for inactive generators.

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On the basis of the industries canvassed for 1929, Wisconsin ranked thirtieth among the States in value of mineral products and thirty-fourth in number of wage earners employed in mining and quarrying industries. (See GENERAL EXPLANATIONS—Scope of the Census.) Since the scope of the censuses for 1919 and 1929 was not the same as to the industries covered, comparisons as to the magnitude of the mining and quarrying industries can not be made directly between the statistics for the two years; but by revision of the 1929 figures to exclude data for the sand and gravel industry, comparison of the activities of the remaining industries is made possible. On this basis, the value of products, as shown in Table 1, was 1.7 per cent less in 1929 than in 1919.

The corporate form of organization was most important among enterprises in the mining industries in Wisconsin in 1929. As shown in Table 2, corporations operated 76.2 per cent of all enterprises, employed 92.3 per cent of the wage earners, and produced 92.8 per cent of the total value of products. Other forms of organization include partnerships, enterprises operated by individuals, etc.

Table 3 shows the relatively large number of small enterprises as measured by the number of wage earners employed. Of the total number of enterprises in Wisconsin, 94.6 per cent were in classes having not more than 50 wage earners. These enterprises employed 54 per cent of the total number of wage earners and contributed 53.3 per cent of the total value of products.

The statistics for the length of the working week for wage earners, given in Table 4, show that the 48-hour week predominated, while the "54 and over but under 63" class ranked second. In the iron-ore industry all of the wage earners were in the 48-hour class. In the limestone and the sand and gravel industries the longer working week predominated.

Table 5 gives power-equipment figures for enterprises classified according to horsepower rating. Of the aggregate horsepower shown, 3 enterprises in the "2,500 or more" horsepower group reported 23,237 horsepower, or 34.7 per cent, while all enterprises reporting 250 or more accounted for 58,252 horsepower, or 87 per cent of the aggregate for the State.

The statistics for wage earners presented in Table 6, showing the changes in the numbers employed from month to month, reflect conditions prevailing in the industries during the census year.

Table 7 presents the 1929 statistics in detail for the State as a whole and for each industry for which separate figures can be given without disclosing, exactly or approximately, the data reported by individual enterprises.

The iron-ore industry ranked first in the State, accounting for 33.4 per cent of the total value of products. This industry, together with the limestone and the sand and gravel industries, produced 80.3 per cent of the total. Wisconsin ranked fifth among the States in 1929 in the iron-ore industry, although it accounted for only slightly more than 2 per cent of the total value of products for this industry in the United States.

TABLE 1.—SUMMARY FOR ALL INDUSTRIES: 1929 AND 1919<sup>1</sup>

	ALL MINING AND QUARRYING INDUSTRIES			Per cent of increase or decrease (-)		ALL MINING AND QUARRYING INDUSTRIES			Per cent of increase or decrease (-)
	1929		1919			1929		1919	
	All industries	Revised (for comparative purposes) <sup>2</sup>				All industries	Revised (for comparative purposes) <sup>2</sup>		
Number of enterprises <sup>3</sup> .....	147	99	92	(4)	Principal expenses: <sup>7</sup>				
Number of mines and quarries.....	161	104	107	-2.8	Salaries.....	\$ 897, 128	\$ 542, 252	\$ 618, 115	-12.3
Persons engaged, total.....	3, 333	2, 791	3, 889	-28.2	Wages.....	4, 231, 451	3, 545, 182	4, 750, 235	-25.4
Proprietors and firm members.....	42	33	48	(4)	Contract work.....	67, 596	23, 230	135, 293	-79.1
Salaried employees.....	\$ 384	\$ 241	294	-18.0	Supplies and materials.....	1, 656, 004	1, 887, 612	1, 909, 512	-29.5
Wage earners (average for the year) <sup>4</sup> .....	2, 907	2, 517	3, 547	-29.0	Fuel.....	207, 736	186, 202	309, 187	-39.8
Power equipment (total horsepower).....	67, 240	49, 158	26, 766	83.7	Purchased electric energy.....	717, 982	522, 359	548, 078	-4.7
					Value of products <sup>8</sup> .....	13, 163, 414	10, 401, 057	10, 530, 833	-1.7

<sup>1</sup> See GENERAL EXPLANATIONS—Scope of the Census.

<sup>2</sup> The figures for 1929 have been adjusted to make them comparable with 1919. See GENERAL EXPLANATIONS—Scope of the Census.

<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>4</sup> Per cent not computed where base is less than 100.

<sup>5</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>6</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>7</sup> See GENERAL EXPLANATIONS—Expenses.

<sup>8</sup> See GENERAL EXPLANATIONS—Value of Products.

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TABLE 2.—CHARACTER OF ORGANIZATION, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products	INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products
ALL INDUSTRIES, total.....	147	161	2,907	\$13,163,414	SAND AND GRAVEL, total.....	48	57	390	\$2,702,357
Corporations.....	112	125	2,083	12,221,083	Corporations.....	40	49	345	2,460,562
Other <sup>1</sup> .....	35	36	224	942,331	Other <sup>1</sup> .....	8	8	45	301,795
IRON ORE, total.....	3	3	948	4,394,869	ZINC, total.....	9	9	284	1,326,162
Corporations.....	3	3	948	4,394,869	Corporations <sup>2</sup> .....	9	9	284	1,326,162
LIMESTONE, total.....	53	58	817	3,406,692	GRANITE, total.....	18	18	283	888,195
Corporations.....	37	41	725	3,005,789	Corporations.....	15	15	273	853,590
Other <sup>1</sup> .....	16	17	92	400,903	Other <sup>1</sup> .....	3	3	10	34,605

<sup>1</sup> Partnerships, enterprises operated by individuals, etc.

<sup>2</sup> Includes 1 other form of organization.

TABLE 3.—SIZE OF ENTERPRISES AS MEASURED BY NUMBER OF WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products	INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products
ALL INDUSTRIES, total.....	147	161	2,907	\$4,281,451	\$13,163,414	SAND AND GRAVEL, total.....	48	57	390	\$686,289	\$2,702,357
1 to 5.....	43	44	128	181,736	806,198	1 to 5.....	17	18	52	84,939	499,624
6 to 20.....	72	77	738	1,050,706	3,449,397	6 to 20.....	29	34	338	601,350	2,262,793
21 to 50.....	24	30	703	960,372	2,761,425	21 to 50.....	2	5	9	363,901	1,326,162
51 to 100.....	5	7	304	470,775	1,145,186	ZINC, total.....	9	9	284	363,901	1,326,162
101 to 250.....	2	2	1,034	1,561,864	5,001,258	1 to 5.....	2	2	25	24,116	67,678
501 to 1,000.....	1	1				6 to 20.....	1	1	250	339,845	1,263,484
IRON ORE, total.....	3	3	948	1,405,106	4,394,869	21 to 50.....	4	4			
21 to 50.....	1	1	948	1,405,106	4,394,869	51 to 100.....	2	2			
101 to 250.....	1	1				GRANITE, total.....	18	18	283	391,812	888,195
501 to 1,000.....	1	1				1 to 5.....	6	6	18	37,034	123,851
LIMESTONE, total.....	53	58	817	1,168,088	3,406,692	6 to 20.....	6	6	50	60,954	200,482
1 to 5.....	13	13	36	30,940	115,838	21 to 50.....	5	5	209	287,824	563,862
6 to 20.....	28	28	298	351,821	1,078,846	51 to 100.....	1	1			
21 to 50.....	9	12	242	333,321	1,068,223						
51 to 100.....	2	4	241	393,006	1,163,785						
101 to 250.....	1	1									

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.

TABLE 4.—PREVAILING HOURS OF LABOR PER WEEK FOR WAGE EARNERS, FOR SELECTED INDUSTRIES: 1929

[This table does not include data for enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to prevailing hours of labor. The number of enterprises in this class in Wisconsin was 4, distributed as follows: Limestone, 2; granite, 1; lead, 1. The combined value of products represented by these enterprises was \$18,185]

INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products	INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products
ALL INDUSTRIES, total <sup>1</sup> .....	148	157	2,897	\$4,219,920	\$13,145,220	SAND AND GRAVEL, total.....	48	57	390	\$686,289	\$2,702,357
Under 25.....	1	1	69	118,348	308,708	Under 25.....	1	1	37	78,519	245,573
44 and over but under 48.....	5	5	1,377	1,973,940	6,052,604	44 and over but under 48.....	1	1	42	44,630	231,189
48.....	27	28	104	150,841	519,910	48.....	4	5	311	563,140	2,285,595
Over 48 but under 54.....	10	13	1,248	1,767,561	5,336,473	Over 48 but under 54.....	4	7			
54 and over but under 63.....	97	107	121	209,221	927,534	54 and over but under 63.....	36	41			
63 and over.....	3	3				63 and over.....	2	2			
IRON ORE, total.....	3	3	948	1,405,106	4,394,869	ZINC, total.....	9	9	284	363,901	1,326,162
48.....	3	3	948	1,405,106	4,394,869	48.....	4	4	159	212,003	839,005
LIMESTONE, total <sup>1</sup> .....	51	56	812	1,162,088	3,305,892	54 and over but under 63.....	5	5	125	151,958	487,157
48.....	4	4	35	53,940	224,839	GRANITE, total <sup>1</sup> .....	17	17	280	388,551	884,960
Over 48 but under 54.....	4	4	43	84,487	191,371	44 and over but under 48.....	4	4	52	71,472	193,826
54 and over but under 63.....	42	47	734	1,023,011	2,979,682	48.....	9	9	153	227,096	402,908
63 and over.....	1	1				Over 48 but under 54.....	1	1	70	89,963	288,226
						54 and over but under 63.....	3	3			

<sup>1</sup> See headnote.

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TABLE 5.—ENTERPRISES CLASSIFIED ACCORDING TO TOTAL RATING OF POWER EQUIPMENT: 1929

[This table does not include data for 4 enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for detailed power-equipment information. Of the 143 enterprises whose value of product was \$20,000 or more, no power equipment was reported by 2]

TYPE	Total, all sizes	RATING OF POWER EQUIPMENT FOR ENTERPRISES INDIVIDUALLY REPORTING TOTAL HORSEPOWER OF—						
		Less than 25	25 to 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more
Number of enterprises reporting power equipment <sup>1</sup> .....	141	3	30	42	35	21	7	3
Prime movers and electric motors driven by purchased energy, aggregate horsepower <sup>2</sup> .....	66,925	26	1,804	6,753	11,708	13,123	10,184	23,237
Prime movers, total horsepower.....	17,410	20	999	1,016	3,303	1,502	3,085	6,589
Steam engines—								
Number.....	70		11	17	16	14	11	1
Horsepower.....	8,047		400	1,261	850	606	2,530	2,400
Steam turbines—								
Number.....	1							1
Horsepower.....	4,180							4,189
Internal-combustion engines—								
Number.....	113	2	19	16	51	20	5	
Horsepower.....	4,073	20	599	655	2,458	686	555	
Water wheels and water turbines—								
Number.....	1					1		
Horsepower.....	210					210		
Horsepower rating of inactive prime movers, included above.....	50			20		30		
Electric motors driven by purchased energy—								
Number.....	1,358	3	38	142	284	383	198	310
Horsepower.....	49,508	6	895	4,837	8,400	11,621	7,099	16,648
Electric motors driven by energy generated by enterprises reporting:								
Number.....	23			5	12	6		
Horsepower.....	522			40	338	144		
Electric generators:								
Number.....	6			3	1	2		
Kilowatts.....	318			30	110	178		

<sup>1</sup> See headnote.<sup>2</sup> See Table 7 for total horsepower rating of power equipment for all enterprises.

TABLE 6.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1929

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

INDUSTRY	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
ALL INDUSTRIES, total.....	2,907	<b>1,061</b>	1,975	2,215	2,000	3,233	3,453	<b>3,537</b>	3,570	3,482	3,283	2,983	2,423	54.7
Iron ore.....	948	777	<i>764</i>	813	814	989	1,065	1,022	1,033	1,025	1,088	1,048	963	71.5
Limestone.....	817	498	504	570	792	982	1,001	1,042	965	929	921	896	698	47.8
Sand and gravel.....	360	<i>136</i>	151	245	438	504	525	538	546	532	497	409	164	24.9
Zinc.....	284	270	282	263	271	284	284	311	327	327	290	<i>240</i>	251	76.1
Granite.....	283	<i>145</i>	160	166	205	288	354	459	455	452	284	193	204	31.6
Silica.....	101	80	82	86	101	164	112	118	121	111	108	97	81	66.9
Sandstone.....	40	<i>5</i>	16	20	43	47	58	43	78	51	61	32	27	6.4
Other industries.....	44	32	<i>16</i>	32	35	35	54	54	54	55	59	59	40	27.1

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TABLE 7.—DETAILED STATISTICS FOR SELECTED INDUSTRIES: 1929

[This table presents statistics for each industry for which it is possible to give separate figures without disclosing data for individual enterprises]

	Total	Iron ore	Limestone	Sand and gravel	Zinc	Granite	Silica <sup>1</sup>	Sandstone	Other industries <sup>2</sup>
Number of enterprises <sup>3</sup> .....	147	3	53	48	9	18	4	5	7
Number of mines and quarries.....	161	3	58	57	9	18	4	5	7
Persons engaged in industry, total (all classes).....	3,333	1,010	950	542	317	308	105	51	50
Proprietors and firm members.....	42		19	9	4	3		5	2
Principal salaried officers of corporations <sup>4</sup> .....	101		36	54	5	5		1	
Other salaried officers and employees <sup>4</sup> .....	283	62	78	89	24	17	4	5	4
Wage earners (average for the year).....	2,907	948	817	300	284	283	101	40	44
Principal expenses:									
Salaries and wages—									
Principal officers of corporations <sup>4</sup> .....	\$333,941		\$124,200	\$184,730	\$10,700	\$13,111		\$1,200	
Other salaried officers and employees <sup>4</sup> .....	\$563,187	\$153,538	\$142,462	\$170,146	\$43,874	\$32,932	\$10,620	\$3,606	\$6,009
Wage earners.....	\$4,231,451	\$1,405,166	\$1,168,088	\$686,289	\$368,961	\$391,812	\$126,893	\$40,652	\$48,590
Contract work.....	\$57,596		\$3,978	\$29,366	\$24,252				
Supplies.....	\$1,656,004	\$558,448	\$436,217	\$268,392	\$202,521	\$87,556	\$41,536	\$4,545	\$6,789
Fuel.....	\$267,736	\$81,587	\$83,170	\$81,534	\$5,817	\$7,000	\$1,030	\$3,025	\$3,973
Purchased electric energy.....	\$717,982	\$182,395	\$148,101	\$195,623	\$151,108	\$86,085	\$750	\$2,721	\$290
Expenditures for development (included above in "Principal expenses").....	\$400,000	\$434,000	\$18,000		\$36,000	\$2,000			
Value of products.....	\$13,163,414	\$4,394,869	\$3,406,692	\$2,762,357	\$1,326,162	\$888,195	\$216,673	\$66,012	\$102,454
Machinery and other equipment purchased during the year, total cost.....	\$685,133	\$205,308	\$239,046	\$197,692	\$4,304	\$37,141	\$1,032		\$520
Prime movers and electric motors driven by purchased energy, aggregate horsepower.....	67,240	16,083	18,214	18,082	4,523	4,216	445	279	4,498
Prime movers, total horsepower.....	17,669	3,550	2,928	5,528		779	355	80	4,449
Steam engines—									
Number.....	78	4	19	37		6	3	2	2
Horsepower.....	8,297	3,550	1,020	2,793		419	315	70	130
Steam turbines—									
Number.....	1								1
Horsepower.....	4,180								4,180
Internal-combustion engines—									
Number.....	113		44	63		1	1	1	3
Horsepower.....	4,973		1,908	2,735		150	40	10	130
Water wheels and water turbines—									
Number.....	1					1			
Horsepower.....	210					210			
Electric motors driven by purchased energy—									
Number.....	1,369	276	401	421	160	86	2	9	4
Horsepower.....	49,671	13,433	15,286	12,554	4,523	3,437	90	199	49
Electric motors driven by energy generated by enterprises reporting:									
Number.....	23			17		6			
Horsepower.....	522			378		144			
Electric generators:									
Number.....	6		1	4		1			
Kilowatts.....	318		11	140		167			
Fuel and electric energy consumed:									
Fuel—									
Coal—									
Anthracite..... tons, 2,240 pounds.....	149	29				120			
Bituminous..... tons, 2,000 pounds.....	33,724	14,443	8,177	7,892	1,011	1,405	142	163	551
Coke..... tons, 2,060 pounds.....	47,162	47,112		60					
Fuel oils..... gallons.....	160,626	11,752	101,559	28,080			8,000	30	1,104
Gasoline and kerosene..... gallons.....	415,237	678	193,541	200,936	8,430	50		400	11,202
Gas, manufactured..... M cubic feet.....	2,227	2,227							
Electric energy—									
Purchased..... kw.-hours.....	40,077,009	13,801,827	9,154,469	7,982,962	7,128,920	1,828,722	52,083	107,259	20,704
Generated by enterprises reporting..... kw.-hours.....	52,500			52,500					

<sup>1</sup> Gansior, 3 enterprises; quartz, 1.  
<sup>2</sup> Barite, 1 enterprise; clay, 1; lead, 1; sand, molding, 2; stone, miscellaneous, 1; talc, 1.  
<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.  
<sup>4</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

## WYOMING

On the basis of the industries canvassed for 1929, Wyoming ranked twenty-fifth among the States in value of mineral products and twenty-fourth in number of wage earners employed in mining and quarrying industries. (See GENERAL EXPLANATIONS—Scope of the Census.) Since the scope of the censuses for 1919 and 1929 was not the same as to the industries covered, comparisons as to the magnitude of the mining and quarrying industries can not be made directly between the statistics for the two years; but by revision of the 1919 figures to exclude data for the petroleum and natural-gas industries, comparison of the activities of the remaining industries is made possible. On this basis, the value of products, as shown in Table 1, was 5.8 per cent less in 1929 than in 1919.

Statistics for nonproducing (development only) enterprises are given in Table 2, and are not included in any of the other tables shown.

The corporate form of organization was most common among enterprises in the mining industries in Wyoming in 1929. As shown in Table 3, corporations operated 64.3 per cent of all enterprises, employed 97.9 per cent of the wage earners, and produced 98.4 per cent of the total value of products. Other forms of organization include partnerships, enterprises operated by individuals, etc.

Table 4 shows the relatively large number of small enterprises as measured by the number of wage earners employed. Of the total number of enterprises employing wage earners in Wyoming, 61.8 per cent were

in classes having not more than 50 wage earners. These enterprises employed only 6.3 per cent of the total number of wage earners and contributed 5.1 per cent of the total value of products.

The statistics for the length of the working week for wage earners, given in Table 5, show that the 48-hour week predominated. In the bituminous-coal industry about 90 per cent of the wage earners were in the 48-hour-week class.

Table 6 gives power-equipment figures for enterprises classified according to horsepower rating. Of the aggregate horsepower shown, 7 enterprises in the "2,500 or more" horsepower group reported 32,634 horsepower, or 64.7 per cent. This amount, together with 11,966 horsepower reported by 7 enterprises in the next smaller group, represents 88.4 per cent of the total shown.

The statistics for wage earners presented in Table 7, showing the changes in the numbers employed from month to month, reflect conditions prevailing in the industries during the census year.

Table 8 presents the 1929 statistics in detail for the State as a whole and for each industry for which separate figures can be given without disclosing, exactly or approximately, the data reported by individual enterprises.

The bituminous-coal industry ranked first in the State, accounting for 91 per cent of the total value of products.

TABLE 1.—SUMMARY FOR ALL INDUSTRIES: 1929 AND 1919<sup>1</sup>

	ALL MINING AND QUARRYING INDUSTRIES		Per cent of increase or decrease (—)		ALL MINING AND QUARRYING INDUSTRIES		Per cent of increase or decrease (—)
	1929	1919 <sup>2</sup>			1929	1919 <sup>2</sup>	
Number of enterprises <sup>3</sup> .....	56	67	( <sup>4</sup> )	Principal expenses: <sup>7</sup> Salaries..... <sup>8</sup> \$630,643 Wages..... 9,063,750 Contract work..... 32,521 Supplies and materials..... 2,114,512 Fuel..... 420,379 Purchased electric energy..... 354,452 Value of products <sup>9</sup> ..... 18,817,045	\$956,232	11,089,680	—34.0
Number of mines and quarries.....	73	87	( <sup>4</sup> )		—12.9		
Persons engaged, total.....	5,552	7,915	—29.9		—17.3		
Proprietors and firm members.....	24	19	( <sup>4</sup> )		—18.4		
Salaried employees.....	240	364	—32.4		—14.1		
Wage earners (average for the year) <sup>6</sup> .....	5,282	7,532	—29.9		14.1		
Power equipment (total horsepower).....	50,855	49,864	2.0		—5.8		

<sup>1</sup> See GENERAL EXPLANATIONS—Scope of the Census.

<sup>2</sup> The figures for 1919 have been adjusted to make them comparable with 1929. See GENERAL EXPLANATIONS—Scope of the Census.

<sup>3</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>4</sup> Per cent not computed where base is less than 100.

<sup>5</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>6</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>7</sup> See GENERAL EXPLANATIONS—Expenses.

<sup>8</sup> See GENERAL EXPLANATIONS—Value of Products.

MINES AND QUARRIES—WYOMING

TABLE 2.—SUMMARY FOR NONPRODUCING ENTERPRISES: 1929

	1929	1929	
Number of enterprises.....	10	Principal expenses—Continued	
Number of mines.....	11	Wages.....	\$105,220
Wage earners (average for the year).....	72	Supplies, fuel, and purchased electric energy.....	42,940
Power equipment (total horsepower).....	1,035	Expenditures for development (included above in "Principal expenses").....	117,500
Principal expenses:			
Salaries.....	\$17,800		

TABLE 3.—CHARACTER OF ORGANIZATION, FOR ALL INDUSTRIES AND FOR BITUMINOUS-COAL INDUSTRY: 1929

INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products	INDUSTRY AND CLASS	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Value of products
ALL INDUSTRIES, total.....	56	73	5,282	\$18,817,045	COAL, BITUMINOUS, total.....	35	50	4,693	\$17,118,580
Corporations.....	36	51	5,171	18,522,189	Corporations.....	24	39	4,051	17,024,008
Other <sup>1</sup> .....	20	22	111	294,856	Other <sup>1</sup> .....	11	11	42	94,572

<sup>1</sup> Partnerships, enterprises operated by individuals, etc.

TABLE 4.—SIZE OF ENTERPRISES AS MEASURED BY NUMBER OF WAGE EARNERS, FOR ALL INDUSTRIES AND FOR BITUMINOUS-COAL INDUSTRY: 1929

INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products	INDUSTRY AND SPECIFIED NUMBERS OF WAGE EARNERS PER ENTERPRISE	Number of enterprises <sup>1</sup>	Number of mines and quarries	Wage earners (average for the year) <sup>2</sup>	Wages	Value of products
ALL INDUSTRIES, total <sup>3</sup> .....	55	72	5,282	\$9,663,759	\$18,813,845	COAL, BITUMINOUS, total.....	35	50	4,693	\$8,716,950	\$17,118,580
Not reported.....	1	1	20	45,265	133,430	1 to 5.....	8	8	15	18,841	47,034
1 to 5.....	14	15	147	134,442	456,332	6 to 20.....	5	5	44	55,821	97,147
6 to 20.....	13	14	157	165,895	377,418	21 to 50.....	3	3	80	94,511	249,901
21 to 50.....	6	6	550	1,061,184	1,769,334	51 to 100.....	0	7	485	972,207	1,675,075
51 to 100.....	7	8	1,234	1,838,082	4,252,538	101 to 250.....	8	10	1,234	1,838,082	4,252,538
101 to 250.....	8	10	3,165	6,368,891	11,824,203	251 to 500.....	4	9	2,835	5,737,398	10,896,885
251 to 500.....	5	10				1,001 to 2,500.....	1	8			
1,001 to 2,500.....	1	8									

<sup>1</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons Engaged.

<sup>3</sup> Exclusive of 1 enterprise employing no wage earners.

TABLE 5.—PREVAILING HOURS OF LABOR PER WEEK FOR WAGE EARNERS, FOR ALL INDUSTRIES AND FOR BITUMINOUS-COAL INDUSTRY: 1929

[This table does not include data for enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for information pertaining to prevailing hours of labor. The number of enterprises in this class in Wyoming was 14, distributed as follows: Coal, bituminous, 12; copper, 1; granite, 1. The combined value of products represented by these enterprises was \$109,472]

INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products	INDUSTRY AND PREVAILING HOURS OF LABOR PER WEEK	Number of enterprises	Number of mines and quarries	Wage earners (average for the year)	Wages	Value of products
ALL INDUSTRIES, total <sup>1</sup> .....	42	59	5,238	\$9,607,200	\$18,707,573	COAL, BITUMINOUS, total <sup>1</sup> .....	23	38	4,649	\$8,060,391	\$17,014,908
Under 25.....	1	1	107	362,244	563,467	40.....	2	2	482	843,431	1,569,510
40.....	2	2	290	486,586	1,020,607	44 and over but under 48.....	3	3	4,167	7,816,960	15,445,398
44 and over but under 48.....	4	4	4,530	8,579,440	16,667,080	48.....	18	38			
48.....	25	42									
Over 48 but under 54.....	1	1	105	178,930	447,419						
54 and over but under 63.....	8	8									
63 and over.....	1	1									

<sup>1</sup> See headnote.

TABLE 6.—ENTERPRISES CLASSIFIED ACCORDING TO TOTAL RATING OF POWER EQUIPMENT: 1929

[This table does not include data for 14 enterprises whose value of product was less than \$20,000. Such enterprises were permitted to report on an abbreviated schedule, which did not call for detailed power-equipment information. Of the 42 enterprises whose value of product was \$20,000 or more, no power equipment was reported by 3]

TYPE	Total, all sizes	RATING OF POWER EQUIPMENT FOR ENTERPRISES INDIVIDUALLY REPORTING TOTAL HORSEPOWER OF—					
		Less than 99	100 to 249	250 to 499	500 to 999	1,000 to 2,499	2,500 or more
Number of enterprises reporting power equipment <sup>1</sup> .....	39	10	6	4	5	7	7
Prime movers and electric motors driven by purchased energy, aggregate horsepower <sup>2</sup> .....	50,453	479	751	1,024	2,999	11,966	32,634
Prime movers, total horsepower.....	27,802	262	616	824	1,805	9,470	14,825
Steam engines—							
Number.....	39	1	7	3	14	6	8
Horsepower.....	10,810	75	430	375	1,405	2,700	11,825
Steam turbines—							
Number.....	12				1	8	3
Horsepower.....	10,170				400	6,770	3,000
Internal-combustion engines—							
Number.....	21	9	7	5			
Horsepower.....	822	187	180	449			
Horsepower rating of inactive prime movers, included above.....	2,080		80			1,500	500
Electric motors driven by purchased energy—							
Number.....	637	15	8	15	52	100	447
Horsepower.....	22,051	217	135	800	1,194	2,496	17,809
Electric motors driven by energy generated by enterprises reporting:							
Number.....	1,287		10	21	32	272	946
Horsepower.....	40,948		143	620	1,010	10,753	28,422
Electric generators:							
Number.....	27		2	4	4	9	8
Kilowatts.....	17,870		130	415	775	5,850	10,700

<sup>1</sup> See headnote.

<sup>2</sup> See Table 8 for total horsepower rating of power equipment for all enterprises.

TABLE 7.—WAGE EARNERS, BY MONTHS, FOR SELECTED INDUSTRIES: 1929

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

INDUSTRY	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
All industries, total.....	5,282	5,500	5,732	5,420	5,000	4,711	<b>4,602</b>	4,093	5,042	5,544	5,598	5,769	5,713	51.0
Coal, bituminous.....	4,693	4,901	5,092	4,862	4,401	4,089	<b>4,014</b>	4,073	4,400	4,980	5,016	5,263	5,172	76.4
Clay.....	55	39	45	51	66	62	<b>63</b>	54	53	65	64	44	50	59.1
Other industries.....	534	566	595	513	533	500	<b>585</b>	566	529	499	518	<b>462</b>	491	77.6

TABLE 8.—DETAILED STATISTICS FOR SELECTED INDUSTRIES: 1929

[This table presents statistics for each industry for which it is possible to give separate figures without disclosing data for individual enterprises. Two of the "Other industries," however, were of greater importance in the State than one of the industries shown separately]

	Total	Coal, bituminous	Clay	Other industries <sup>1</sup>		Total	Coal, bituminous	Clay	Other industries <sup>1</sup>
Number of enterprises <sup>2</sup> .....	58	35	5	16	Prime movers, etc.—Continued				
Number of mines and quarries.....	73	50	5	18	Prime movers, total horsepower <sup>4</sup> .....	28,144	26,807	627	710
Persons engaged in industry, total (all classes).....	5,552	4,003	68	581	Steam engines—				
Proprietors and firm members.....	24	12		12	Number.....	52	44		8
Principal salaried officers of corporations <sup>3</sup> .....	21	20	1		Horsepower.....	17,152	16,637		516
Other salaried officers and employees <sup>3</sup> .....	225	178	12	35	Steam turbines—				
Wage earners (average for the year).....	5,282	4,603	55	534	Number.....	12	12		
Principal expenses:					Horsepower.....	10,170	10,170		
Salaries and wages—					Internal-combustion engines—				
Principal officers of corporations <sup>3</sup> .....	\$86,023	\$86,023	\$600		Number.....	21		11	10
Other salaried officers and employees <sup>3</sup> .....	\$544,020	\$447,161	\$10,947	\$76,012	Horsepower.....	822		627	195
Wage earners.....	\$9,003,759	\$8,716,050	\$61,401	\$885,348	Electric motors driven by purchased energy:				
Contract work.....	\$32,521	\$31,771		\$750	Number.....	643	549		94
Supplies.....	\$2,114,512	\$1,750,139	\$50,584	\$313,789	Horsepower.....	22,711	18,659		4,052
Fuel.....	\$420,379	\$366,141	\$17,807	\$36,931	Electric motors driven by energy generated by enterprises reporting:				
Purchased electric energy.....	\$354,452	\$291,546		\$62,906	Number.....	1,287	1,268	19	
Expenditures for development (included above in "Principal expenses").....	\$279,000	\$138,000		\$141,000	Horsepower.....	40,948	40,505	443	
Value of products.....	\$18,817,045	\$17,118,580	\$218,141	\$1,480,324	Electric generators: <sup>5</sup>				
Machinery and other equipment purchased during the year, total cost.....	\$518,154	\$321,201	\$124,795	\$72,158	Number.....	27	24	3	
Prime movers and electric motors driven by purchased energy, aggregate horsepower.....	50,856	45,466	627	4,762	Kilowatts.....	17,870	17,525	345	
					Fuel and electric energy consumed:				
					Fuel—				
					Coal, bituminous				
					tons, 2,000 pounds.....	180,857	174,827	1,064	4,066
					Fuel oils.....gallons.....	80,448		74,948	5,500
					Gasoline and kerosene.gallons.....	71,926		38,263	33,673
					Electric energy—				
					Purchased.....kw.-hours.....	13,185,701	9,017,668		3,268,033
					Generated by enterprises reporting.....kw.-hours.....	50,414,145	50,305,945	108,200	

<sup>1</sup> Copper, 1 enterprise; granite, 1; gypsum, 2; iron ore, 1; limestone, 7; phosphate rock, 1; sand and gravel, 1; sandstone, 2.

<sup>2</sup> See GENERAL EXPLANATIONS—The Enterprise.

<sup>3</sup> Not including data for salaried officers and employees of "Central Administrative" offices.

<sup>4</sup> Includes 2,080 horsepower for inactive prime movers.

<sup>5</sup> Includes 400 kilowatts for inactive generators.